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ORIGINAL COMMUNICATIONS.

ART. I.—*Development of the Placenta in the Fallopian Tube in three successive Pregnancies, followed by death from rupture of the Uterus in a succeeding Pregnancy.* By C. N. ANDREWS, M. D., read before the Ills. State Med. Society.

MRS. H. S. G., aged 26, above medium heighth, of slender form but good organization, the mother of one living child three years of age, the result of her first pregnancy, suffered abortion on the 24th of March, 1845, when near the end of the third month of pregnancy; and also again on the 13th of November of the same year, at a somewhat earlier period. Conception again took place in the month of March following (1846), and on the 6th of the following November, I was sent for to attend her accouchment. In the early part of the afternoon she had been attacked with labor pains, and when I arrived the *os uteri* was considerably dilated and the membranes protruding. Labor progressed favorably, and 10 minutes before 7 o'clock she was delivered of a small female child. The patient, at the delivery of the child, was in a kneeling posture, on the floor, and leaning forward and supporting herself in an arm-chair. A sudden and tremendous gush of blood immediately followed the birth of the child. The patient was placed in a supine position, and the ordinary measures to excite

contraction of the uterus and to arrest hemorrhage from this organ were promptly used, but without success. Without much delay I searched for the placenta by tracing the cord with the index finger of my right hand, but it could not thus be reached. Slight traction upon the cord conveyed to the hand a sensation of firmness. I soon found my patient sinking so rapidly that I resolved on removing the contents of the uterus at once. I commenced by tracing the cord with the extended finger of my right hand, and continuing the search in this way, I found the placenta adhering by about one-third of its extent, to the right side of the uterus, near the fundus, the remaining portion floating with the membranes in fluid blood and coagula. I extended my hand under and posterior to the adhering portion and commenced detaching in an anterior direction, but I had not proceeded far in this way before I met with great resistance. I then drew my hand to the anterior side and commenced detaching in a posterior direction, but soon met with the same resistance as before; I then passed the end of my index finger back and forth around the adhering portion, and broke through several adhering filaments, but there was still adhering a portion of placenta of circular form, as large as I could span with my thumb and index finger, which no ordinary effort could detach. I tried to separate it from the uterus by tortion, but without success; also by traction, but this only drew the wall of the uterus into its own cavity which was not yet much reduced by contraction. Continuing my efforts, I grasped the placenta and by traction upon it drew, as I had previously done, the wall of the uterus into its own cavity, and then, with the parts in this condition, I passed the point of my index finger closely around the adhering portion [and felt a sharp circular ridge or projection surrounding it, which appeared like the margin of an opening from the uterine cavity. At this moment it occurred to me that a portion of the placenta was in the Fallopian tube. After a moment's reflection] I commenced removing the detached floating portion of placenta by cutting it through with my thumb nail close to the uterine wall, supporting it on the opposite side with my index finger. This I did not accomplish without considerable difficulty, owing to the placenta being very dense and partly mem-

branous at the point of division. After clearing the uterus the patient was placed in bed. She was very feeble: pulse 120, small and weak, had nausea, and vomited profusely. Stimulants were administered and she soon revived. At 9½ o'clock I left her for the night. She continued to improve, and nothing worthy of note occurred till on the 11th, when I was sent for in great haste. On entering her room I found all within much alarmed, and was told, on inquiring the cause, that "Mrs. G.'s womb had come down into the world." The patient was in great distress of mind and lay pressing both hands upon her vulva with a napkin interposed. I proceeded to explore the vagina in which I found a fleshy substance, slightly protruding externally and reaching the *os uteri*, which I removed at once and without difficulty. I learned, on inquiring, that on the previous evening the patient had been attacked with after pains, which continued with occasional intermissions till a short time previous to my being sent for, when, being at stool, she felt something descend into the vagina, and her pains ceased.

The substance which I removed from the vagina was evidently a portion of placenta, and, without a show of doubt, in my mind, was that portion which I had left in the Fallopian tube and which had there remained till incipient putrefaction had destroyed its intimate connection with the parts containing it, when these parts, by their natural contraction, were competent to expel it. It possessed the usual appearances of placenta, except its increased density. It was of conical shape, about three and a half inches in length, and three and three-fourths in circumference at its base, and the cavity of the amnion extended quite to its apex, so that I was enabled to draw it on my finger as I would the finger of a glove. One side of this cavity was wholly membranous and lay pressed in longitudinal folds, in a groove-like depression, running the whole length of the fleshy portion, which depression formed its other side. The lining surface of this groove-like depression was smooth and membranous, and answered to the fœtal surface of the placenta. The balance of surface of the fleshy or parenchymatous portion, which made up at least five-sixths of its circumference, was rough and granular, and answered to its uterine

surface. The whole parenchymatous portion was so peculiarly firm and elastic that I could not cause it to maintain any other shape than the one I have described, without using an amount of force sufficient to break it down.

I saw the patient again on the 25th, when she had nearly recovered her usual health.

In the month of March, 1847, this woman again became pregnant, and on the 3rd of December following she was attacked with labor pains, and at 9 o'clock, P. M., of that day, I was called in attendance. When I arrived she was far advanced in labor, and in the course of half an hour the child was delivered. Profuse hemorrhage again immediately followed, which I was unable to check, except by such means as I had lastly resorted to at her previous confinement. The same signs of an adherent placenta were present, and, without delay, I introduced my hand into the cavity of the uterus and found that it was again adhering, and to the same part of the uterine cavity, to which I had found it adhering on the previous occasion. By making a minute examination I found about one half of the placenta dipping into the Fallopian tube, the orifice of which appeared about twice as large as on the previous occasion. The same measures for removing the placenta were resorted to, as before, and with like success, except in this instance the increased size of the tubal orifice enabled me to remove a part of the invested portion. Moderate hemorrhage continued for some hours, but finally yielded. She discharged *per vaginam*, for several days, putrid substances which were evidently the portions of placenta which I had not succeeded in removing. She regained her health gradually and without any unpleasant occurrences.

In the month of April, 1848, Mrs. G. again became pregnant, and her previous childbed history lead me to watch her with much solicitude and interest. I was apprehensive of an extra-uterine or tubal pregnancy. Her becoming pregnant again, caused her great distress of mind which amounted almost to despair. I was requested by her husband to visit her frequently and do what I could to quiet her fearful forebodings, and to satisfy myself, by making examinations, from time to time, in regard to anticipated

difficulties. She having passed the second month without any untoward circumstances occurring, and the usual symptoms of *uterine* pregnancy presenting themselves, I concluded I should not realize my worst apprehension. Towards the end of the seventh month my attention was called to a tumor in the right side of the abdomen, above the anterior superior spinous process of the ilium, which appeared to be situated in, or attached to the parietes of the gravid uterus. A careful examination of this tumor convinced me that it was the placenta, and that it was a third time developed in the Fallopian tube. This tumor moved as the uterus moved when the patient turned from one side to the other in bed. A *souffle* of the character of the uterine or placental was distinctly heard in it, and it pulsated with a fine, vibrating and lengthened pulsation.

The patient had discovered this tumor, her attention having been called to it by severe pain in that part of the abdomen; and the nature of her previous childbed difficulties having, by her request, been explained to her, she very soon assigned a cause for it.

On the 4th of January, 1849, I was again called to attend her, she then being about 8 months advanced in pregnancy. When I arrived her labor pains were severe, the *os uteri* dilated, the membranes protruding, and in a short time she was delivered of a dead child in the incipient stages of putrefaction. As on previous occasions, hemorhrage immediately followed to an alarming degree. I at once introduced my hand into the uterus, which was relaxed and distended with fluid blood and coagula, the fundus nearly reaching the epigastrium. I searched for the placenta, but nothing except the umbilical cord and loose floating membranes could be found in the uterine cavity. The presence of my hand in the uterus excited only slight contraction. I traced the cord which led to an opening in the right wall of the uterus into which it penetrated and from which, surrounding the cord, hung the fœtal membranes. Into this opening, the margin of which was abrupt and unyielding, I readily introduced my thumb and two fingers half their length. Having done this I placed my left hand on the integuments of the right side of the abdomen, when I could feel, directly over or external to the points of my thumb and fingers introduced into the

opening in the right uterine wall, a tumor corresponding with that which both the patient and myself had observed some weeks previously, except that as the fœtus no longer crowded it against the abdominal wall, it required to be supported by my right hand and pressed outwardly in order to be distinctly felt. By grasping this tumor with my left hand, and thus holding it as firm as possible to facilitate the labor of my right, I was enabled, through the opening in the wall of the uterus, to break down the placenta and remove the larger portion of it a shred at a time. As the operation progressed, the pressure and counterpressure between my right hand and left rendered it certain that what I removed with my right hand came from within the grasp of my left; I also observed that in proportion as the placenta was removed the tumor softened and yielded in size.

So far as I could judge of the condition of the tube from the sense of touch, it appeared comparatively thin and not much if at all disposed to contract. It yielded freely to the movements of my fingers in any direction, and as I removed the placenta from it, it collapsed and felt more like a portion of large intestine than anything else I could compare it to, and thus presented a striking contrast with the thick, fleshy walls of the uterus and the rigid abrupt tubal orifice.

After removing as much of the placenta as the circumstances seemed to admit or require, and clearing the uterus, hemorrhage continued to a considerable extent for an hour or more, but the patient did not appear as much reduced as she had on either of the previous occasions on which I had attended her. She continued for a number of days to discharge small portions of putrid placenta, but no unfavorable occurrences followed, and she recovered rapidly, more so than after her previous confinement.

In consequence of a change of residence I lost sight of this patient and heard nothing further from her till in the fall of 1851, when I learned accidentally, and in a very indirect way, that she was dead. For some time I could not learn when or at what place she had died. I addressed letters of inquiry to several persons residing in the State of New York, near where she had formerly resided, and at length I ascertained that she had died at Port

Byron, in that State. I continued my inquiries by addressing the physicians of that place, and from Drs. Button and Eldridge who there reside, and from a brother of the patient who has recently moved to Rockford, I have learned the following particulars relating to her decease: On the 22nd of June, 1851, when somewhere in the seventh month of pregnancy, while walking in the garden, she suddenly felt herself somewhat indisposed and went into the house, when it soon became evident that she was in labor. Her pains had not continued long when she felt a sense of giving way or tearing in the abdomen attended with great distress, which was immediately followed by pallor, great prostration and a sense of impending death, and in an hour and a quarter she was a corpse. A *post mortem* examination was made the next day "*in great haste, and merely to ascertain the immediate cause of death,*" which was found to be "*a rupture in the right side of the uterus, caused apparently by chronic ulceration.*"

I regret exceedingly that a more particular examination could not have been made, and the exact relative situation of the rupture, the seat of the "*apparent ulceration,*" the place of attachment of the placenta, and the condition of the right Fallopian tube, noted in detail. It, however, seems to me very probable that the rupture was consequent upon disease produced by the repeated development of the placenta in the tube, together with some mechanical injury that might have been done by my repeated efforts to remove from that organ its abnormal contents at her previous confinements.

After somewhat diligent search, I have been able to find but four cases of development of the placenta in the Fallopian tube on record. D'Outrepont, Riecke, Pagan, and John Bell have respectively noticed cases. The case of Mrs. G. confirms the deductions which have been drawn from these cases, to wit: that such development of the placenta predisposes to abortion or premature labor, and that it is uniformly attended with uterine hemorrhage.

There are two other questions of practical importance connected with Mrs. G.'s case; firstly: was the death of the fœtus at her confinement on the fourth of January, 1849, caused by the placenta being wholly in the tube and a consequent interruption of

the circulation through the cord and placenta? Secondly: I observed at her first and second confinements, when the placenta was only partially in the tube, that the hemorrhage was greatly lessened by detaching the placenta completely up to the margin of the opening of the tube, and having noticed this in the first instance, it influenced my subsequent practice. In her third confinement, when the placenta was wholly in the tube, the hemorrhage was not as sudden and profuse but continued longer than it had done previously, and my efforts to remove that organ did not have so much influence upon it.

My reflections upon these cases have led me to ask, in conclusion, this question: Is not an adherent placenta, and the usual coexisting hemorrhage, a frequent result of partial development of that organ in the tube; some of its roots, if I may so speak, being there planted, during the passage of the ovum, which there continue to vegetate?

ART. II.—*A case of Membranous Croup, with the discharge of a Tube of False Membrane from the Bifurcation of the Trachea.* By Dr. S. H. Bristol, Parma, Michigan.

On the 28th of December, I was called to see a son of Mr. H., aged 6 years. Found him laboring under Pseudo Membranous Croup, pulse 100 and small, breathing very laborious, face and lips livid, countenance pale and haggard, gave him an emetic; he threw up a considerable quantity of glary mucous, and some shreds of false membrane. After vomiting was over, was much relieved, pulse 90, full and soft, face and lips natural. Ordered full dose of calomel to act on the bowels; after which gave ant. gr. 1-6, opi. ¼, to be given every 3 hours.

December 29, found him much improved from previous night; no traces of disease left, except a slight hoarseness in coughing. Ordered hive syrup to be given; and left, with strict orders not to let him be exposed to the cold air.

Jan. 2, three days after, was called in great haste, found his breathing very laborious, pulse 120 and small, face livid; vomited him freely, he threw up several pieces of pseudo membranous exu-

adtion. Ordered calomel gr. 2, opi. ¼, ipecac. ½, every four hours; alternated with stimulating expectorants. Remained easy until 6 o'clock, P. M., when the breathing became laborious; gave ant. ¼ gr. every fifteen minutes until free emesis took place; threw up, at this time, an entire tube, from the bifurcation of the trachea; the part extending up the trachea, from the bifurcation, was one inch in length; from the bifurcation, to the right lung, one inch and one-fourth; to the left lung, three-fourths of an inch; making the entire length of the tube, on the right side, two and one fourth inches in length. Also a large quantity of thick, tenacious mucous.

Jan. 3, remained easy for several hours, when dyspnœa, livid features, jactation, and other unfavorable symptoms came on, which resulted in death, on the third day of the second attack. The peculiarities in this case, seemed to be, the entire tube, its length, the amount of plastic exudation, and the rapidity with which it was formed, after being discharged.

ART. III.—*Case of Intussusceptio successfully treated by Injections.*—By E. M. LIGHT, M. D.

JANUARY 1st, 1 o'clock, P.M., visited Mr.———, aged about thirty, of bilious-sanguine temperament; who was convalescing from a mild attack of typhoid fever. I found him with pulse seventy-four, tongue moist and cleaning. Patient said he felt quie comfortable, with the exception of an indescribable sensation not amounting to pain, in the middle hypogastric region. Ordered laxative of seidlitz powders. At nine in the evening was summoned to patient: found his pulse as before, skin moist, occasiona. vomiting, frequent desire to go to stool, and a steady increase of pan in hypogastrium. Ordered morphia in ¼gr. doses every thirty minutes. Eleven o'clock, P. M., no abatement of pain, pulse as before, but irregular, stomach very irritable, vomiting about every half-hour, with frequent inclination to go to stool. Pain more severe. Left Sulph. morphia in gr. doses to be repeated every thirty minutes, until ease was felt. Mustard sinapisms to stomach and abdomen, pediluvium, &c.

The morphia was continued until four grains were taken, and given after that in ¼gr. doses, every hour, until complete ease was obtained. At eight, A. M., Jan. 2, visited patient: found his pulse 100, tongue dry and furring, occasional emesis, wide awake, perfectly conscious, and quite easy so long as complete rest was had, but upon stirring even an extremity some cutting pain was felt as before. Ordered a syrup of rhubarb and Sulph. potassii, with aromatics, to be given every half hour as the stomach would bear.

Considering the case as one of intussusceptio, and having read in a previous number of your Journal of the treatment of such cases with enemas, I immediately proceeded to their exhibition, and filled his bowels well with warm water and sweet oil. The injections gave pain, emesis and desire to stool. During an attempt at vomiting the bowels gave passage to wind, accompanied by dark liquid evacuations, very fœtid, and from this time emesis ceased, and perfect ease was had.

Bowels continued to pass fœtid and sanious evacuations, with decided dysenteric symptoms which, however, yielded readily to injections of laudanum and cold water, with the rhubarb, as before. From this time patient convalesced rapidly and has remained well to this time.

Oregon, July 6th, 1853.

ART. IV.—*Report from the Medical Wards of the Illinois General Hospital.* By N. S. DAVIS, M.D., one of the Physicians to the Hospital, and Prof of Pathology, Practice of Medicine, and Clinical Medicine in Rush Medical College.

DURING the seven months intervening from January 1st, 1853, to August 1st, the whole number of Cases treated in the *Medical* Wards of the hospital were 150; of which 72 were acute diseases, and the remainder chronic affections. Of those classed as *acute*, 18 are registered under the head of Fever, 8 under that of Dysentery, 6 under that of Cholera Morbus or Diarrhœa with Vomiting, 7 of Acute Opthalmia, 6 of Delirium Tremens, 5 of Acute Rheumatism, 11 of Pneumonia, 4 of Pleurisy, 1 of Pericarditis, 1 of Œdema of the lungs, 2 of Erysipelas, and 3 died within the first

twenty-four hours after admission, being too near dead when brought in, to admit of either diagnosis or treatment. Of the 69 cases of acute disease treated, 8 proved fatal, as follows, viz.: of Fever 2, Dysentery 2, Pneumonia 3, and Œdema of the Lungs 1.

The two fatal cases of fever were complicated with severe local diseases. The first was a female, aged about 35 years, Norwegian by birth, and the mother of one or more children. She was admitted into the hospital January 4th; says she has had Intermittent fever since October previous. Present appearance and symptoms: face, lips, and tongue pale and thin, considerable general emaciation, pulse 100 per minute, soft and small; tongue clean, bowels regular, respiration rather short and hurried, and the spleen so much enlarged as to fill the whole left hypochondriac region, and extend downward to the crest of the illium; the tumor was not painful and only slightly tender to the touch. The appearance of the patient was that of great anæmia or deficiency of red corpuscles in the blood, but without Œdema of the extremities, or appreciable effusion into any of the serous cavities. She is still in the hospital, having a chill followed by a short paroxysm of febrile excitement every day. The sweating stage, however, is very slight or altogether wanting. She was ordered the following powder, to be taken every four hours, viz.:

Chloride of Sodium, 10 grs.
Sulph. Quinine, 3 grs.
Pulv. Opii, 1 gr., mix. Also diet of animal broth. She continued this treatment until the morning of the 6th, without any recurrence of the chills, and with an evident improvement in all the symptoms. This morning, however, she complains of some pain in the left side with more tenderness over the enlarged spleen.

Having had no movement of the bowels during the previous 48 hours, she was ordered three powders, each composed of Pulv. Doveri, 5 grs., and Sub. Murias Hydrarg, 2 grs., to be taken one every four hours, and the whole followed by a laxative of castor oil. But before all the powders had been taken, copious dark fœcal evacuations occurred, and the oil was omitted. On the morning of the 7th, she had no pain or tenderness in the left side and

the spleen was considerably reduced in size. The bowels continued to move often, the discharges being liquid and dark brown color, with much general debility. She was ordered a tea-spoonful of the following emulsion every four hours, with 2 grains of Sulphate of Quinine in each dose, viz.:

℞ Oil Turpentine ℥jj.
Tinct, Opii, ℥jj.
Gum Arabic, } aa ℥jjj. Rub together thoroughly and add water ℥jj, mix.
White Sugar, }

She continued this until the morning of the 10th, when the bowels being less relaxed, the spleen rapidly diminishing in size, and no return of chills, she was directed the same medicine only three times per day. This she continued until the morning of the 13th, when the enlargement of the spleen was found to have entirely disappeared; but there remained a tender irritable state of the mucous membrane of the illium, characterized by two or three evacuations per day of a semi-fluid consistence and brownish color; no appetite; skin dry; and the debility with the anæmic appearances as strongly marked as at the beginning. Wishing to counteract the anæmia by improving the quality of the blood, she was ordered the Persesqui nitrate of iron, in doses of 7 drops, four times per day, with a diet of boiled milk and flour. The next morning, however, finding the iron not well borne by the stomach, she was directed the following powder, to be repeated every six hours, viz.:

℞ Chloride of Sodium, 10 grs.
Sulph. Quinine, 2 grs.
Carb. Iron, 4 grs.
Pulv. Opii, ½ gr.—mix.

On the following morning (the 15th), the looseness of the bowels was found to have greatly increased, accompanied by considerable griping pain, and she was directed Pulv. Opii 1 gr., Acetas Plumbi 2 grs., and Sulph. Quinine 1 gr., mixed, every four hours, with beef-tea. This was continued until the morning of the 18th, with an abatement but not suppression of the diarrhœa. In the mean time the urine had become very scanty and high colored, and a slight appearance of œdema of the extremities. Wishing to avoid

the effects of opium on the kidneys, she was directed to omit the powders, and take a tea-spoon full of the emulsion of oil of turpentine and laudanum every two hours, with an infusion of juniper berries and uva ursi for a drink. This treatment was continued until the 25th, with no other apparent effect than to restrain the bowels, increase moderately the action of the kidneys, and palliate the general symptoms. But this morning the mucous membranes are again more irritable and the symptoms of anæmia with œdema of the extremities slowly increasing. Contrary to directions she eat yesterday some fat broiled pork, which undoubtedly increased the gastric disturbance. She was directed to continue the emulsion with ¼ gr. of nitrate of silver each morning and evening in the form of pill.

Under this treatment the condition of the mucous membranes improved slowly until the 29th, but the general anœmic condition and debility had rather increased. The food taken did not seem to replenish the blood or nourish the tissues.

She was again ordered the persesqui nitrate of iron in doses of 8 drops every 8 hours, with a tea-spoonful of the emulsion between each dose. Finding no improvement, on the first day of February, she was allowed, in addition, (at her own request) a glass of Porter three times a day. From this time the discharges from the bowels became more frequent, the urine more scanty, the œdema of the cellular tissue greater, and some cough with bronchial rales. She was directed at different times small doses of sulphas. cupri with opium, nitrate of bismuth, anodyne and astringent injections, and brandy punch, but all without benefit, and she died exhausted on the 10th of February, thirty-seven days after admission. At the close of this case we find the following note in the memorandum book kept by Dr. H. Parker, then assistant physician in the hospital, viz.:

"Feb. 10th, patient died at 7 o'clock, A. M. The discharges from the bowels continued while life lasted, nothing seeming to control them. The functions of assimilation and nutrition seem to have been almost entirely suspended from the date of her admission; the blood becoming so impoverished and thin as to permeate its own vessels, favored also by a want of tonicity in the

vessels themselves. The spleen had become reduced to its normal size since the second week after her admission, and the liver not being enlarged, I infer there was no obstruction of the portal circulation. What, then, was the cause of the œdema, except the impaired condition of the blood and the vessels containing it?"

Remarks: The points particularly worthy of attention in this case are, 1st, the direct effects of the periodical fever on the functions of assimilation and nutrition including the blood; 2nd, the prompt subsidence of the splenitic enlargement after the paroxysms of ague were arrested; and 3d, the subsequent persistent diarrhœa, anæmia and dropsical effusion.

The second fatal case of fever, was a German aged sixty years, admitted into the hospital April 15th, in a state of extreme prostration. His tongue was dry and brown, eyes heavy and sunken, pulse very small and feeble, chest dull on both sides, breathing laborious, with cough and bloody expectoration. His intellect was extremely dull, it being difficult to arouse him sufficiently to elicit intelligent answers. He had the appearance of having been sick with typhoid fever, complicated with pneumonia, for three weeks. He died on the 7th, about 48 hours after admission.

Of the 16 cases of fever that recovered, four are registered as of the *periodical*, and twelve of the *continued* type.

It must be borne in mind that the period of time embraced in this report includes six of the healthiest months in the year, those in which there is especially the least prevalence of fevers. Three of the four cases registered as periodical were of the intermittent form; and all of them chronic or relapsing cases, accompanied by an impoverished condition of the blood and a relaxed or impaired state of the solid tissues. The recurrence of the chills and febrile exacerbations was generally effectually interrupted within the first 48 hours by the exhibition of chloride of sodium and sulph. quinine in the proportion of 15 grs. of the former to 3 grs. of the latter, repeated every four or six hours; after which a continuance of the same medicine with the addition of three grains of phosphate of iron, and repeated morning and evening, with a plain but nutritious diet, restored the blood and solids to their natural condition in from one to three weeks. If there was any tendency to diarrhœa

opium, in doses of one or two grains, was added to the foregoing medicine, or as a substitute for the whole, the patients were directed the emulsion of oil of turpentine and Tinct. Opii with from two to four grains of Quinine added to each dose. Ten of the twelve cases entered under the head of *continued fever* presented well marked symptoms of intestinal irritation. They were all brought to the hospital between the end of the first and the commencement of the third week after the disease had fairly commenced. Generally they presented a dull, heavy, stupid expression of countenance; skin moderately hot and dry, with a feeling of roughness; mouth and tongue dry, the latter sometimes red and smooth, at others covered with a dark brown coat; abdomen moderately tympanitic and tender to firm pressure; pulse varying from 90 to 120 per minute, soft and easily compressed; capillary circulation in the surface slow and feeble; discharges from the bowels from three to six per day, and almost always dark brown and liquid; and the urine scanty and high colored. In only three of the cases was there any eruption over the abdomen and chest. In four there was dullness on percussion over the inferior and posterior lobes of the lungs, with some cough and shortness of breath. In nearly all the cases delirium of a low, wandering character was present during some part of their course, and dulness of hearing was a common symptom. By technical writers they would be called *typhoid* cases; while the remaining two being destitute of symptoms of intestinal irritation would be classed as *typhus*. A large proportion of them had taken mercurials and purgatives, and some of them liberal doses of quinine and opium before their admission to the hospital. Owing to these facts it has been found impossible to adopt any system of treatment applicable indiscriminately to all cases, more especially as the local complications often demand more attention than the primary general disease. It is indeed very rare that a case of continued fever reaches the hospital in its first stage, or during that period when even Dr. Fenner would consider his *abortive* treatment by large doses of quinine applicable. As the cases present themselves in our wards, we have invariably found the constituents of the blood altered in their qualities, the capillary circulation and secretions

diminished, and the elementary susceptibility of all the solids impaired. The evidences of the first are the dark color of the blood when drawn, the slow coagulation of its fibrin, and the altered appearance of its corpuscles under the microscope; of the second, are the dryness of the skin, mouth, and bronchial membrane, and the diminished secretion from the kidneys; while the third is indicated equally plain by the torpid or impaired condition of the capillary vessels, the slow, hesitating action of the voluntary muscles, the mental dulness and indifference, &c. This we consider the essential part of the disease—the general typhoid condition. Superadded to this general disease, we have in a large majority of cases unmistakeable evidences of intestinal disease, tending rapidly to ulcerations in the mucous membrane of the ilium and enlargement of the mesenteric glands; while in a much smaller proportion of cases a low, or rather congestive, grade of bronchial or pneumonic inflammation occurs; and in a still smaller proportion of cases the same grade of inflammatory action occurs in the brain and its membranes. No evidence of the latter disease was present in any of the cases included in this report; the passive delirium and mental dulness being attributable to a state very different, if not the exact reverse, from inflammation. In one or two of the cases, the local complications were slight, leaving the general typhoid condition the principal object of the treatment. With these, rest, a diet of beef tea pretty well salted, two or three small doses of blue mass, Dover's powder, and soda, followed by a laxative dose of castor oil and oil of turpentine; and the subsequent exhibition of chloride of sodium 10 grs. to 20 grs., combined with from half a grain to one grain of opium every 4 or six hours, has been sufficient to restore the blood and the organic susceptibility to their normal condition, and establish convalescence in from four to ten days after admission.

As already remarked, however, in a large majority of the cases the intestinal complication was prominent and severe. The following case will serve as an example of this variety of the disease, with the treatment.

(*Report Continued next month.*)

An Inquiry, Critical and Experimental, into the Pathology of Fever. By N. S. Davis M. D. Professor of Pathology, Practice of Medicine, and Clinical Medicine, in Rush Medical College; and one of the Physicians to the Ill. Gen. Hospital.

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Morbid appearances are often found in other parts of the body than those already enumerated, such as the Œsophagus, the Pancreas, the Mesentery, and the muscles generally, but they are neither sufficiently constant nor peculiar in their appearance to require particular notice. At the last annual meeting of the American Medical Association, Dr. Campbell, of Georgia, presented a paper or report on Typhoid Fever, in which he claims that the disease has its special origin and seat in the ganglia of the sympathetic nerve. But how far he has verified the existence of disease in those ganglia and plexuses, by actual post-mortem examinations, I do not know; the annual volume of transactions, containing the report, not having yet passed through the press.* The foregoing brief synopsis of the morbid anatomy of continued fever, is sufficient to indicate the extent and nature of those changes which take place during the progress of that class of diseases; and it is worthy of remark, that here, as in fevers of the periodical class, the more malignant and rapidly fatal the progress of the disease, in any given case, the less are the traces of the disease found in the solid structures of the body after death. In a large proportion of such cases, the only appreciable lesions are the dark color and fluid, or but partially coagulated state of the blood: its accumulation in the veins of the more vascular organs; and a general flabby or impaired state of the textures of the body. In the more protracted cases, we have, in addition to the altered state of the blood and the general passive venous congestion, far greater structural changes, especially in the mucous lining of the alimentary canal, the spleen, the lungs, and the heart. But what is the *nature* of these changes? Are they merely the results of inflammatory action, or do they result from an altered relation between the fluids and solids, involving the elementary vital properties, and essentially different from inflammation?

The answer to these questions must depend, in a great degree,

* See Appendix, Note D.

on the meaning which we attach to the word inflammation. If we restrict the application of that word to a specific and uniform morbid process, characterized by *active* local determination of blood, with increase of fibrin in the same, and tendency to induration or suppuration in the solids, then very few of the post-mortem phenomena of continued fever can be attributed to inflammation.

Or, if we extend the application so as to embrace the definition of Dr. Williams, viz.: "too much blood in a part with its motion, partly increased and partly diminished," we shall still find difficulty in many cases. For Dr. Williams evidently means by "motion partly *increased* and partly *diminished*," that the flow of blood to and around the inflamed part is increased, while its passage *through* is retarded or diminished, thereby inducing accumulation in the part. Hence he says in reference to his definition, that "it is easily demonstrated in the *strong pulse* of arteries, leading to an inflamed part, and in the stagnation of much blood in the part."

According to the views of this distinguished author, all three of the elements named are essential to constitute inflammation. The first, consisting of increased flow of blood *to* the part, distinguished it from simple *congestion;* while the second, consisting of retarded flow of blood *through* the part, equally distinguishes it from simple *determination* of blood; and the third, consisting of an accumulation of too much blood in the part, is a necessary consequence of the two preceeding. Are all these conditions of the circulation always, or even generally, present in the organs and tissues most frequently found diseased in connection with continued fevers? That the blood is in many cases retarded in its passage through certain organs, and accumulated in them in undue quantity, is abundantly shown by the engorged state of the vessels of the cerebral meninges, the depending portions of the lungs, the spleen, the mesentery, and portions of the mucous membranes. But that there is an increased flow of blood *to* these several organs, is by no means so certain. It is true, that Dr. Stokes, in his lecture on what he styles Ileitis or *Dothinenteritis*, which is, to some extent, at least, synonymous with the typhoid fever of others writers, speaks of the increased pulsation of the abdominal aorta and its branches, as an important diagnostic sign of inflam-

mation of the bowels. In ordinary inflammation of the intestines, such pulsation is doubtless constantly present, and it may be easily detected in some cases of typhoid fever with strongly marked abdominal symptoms; but I have carefully noticed several cases, in which extensive ulcerations of the mucous lining of the ilium existed, without detecting any undue pulsation in the abdominal arteries during life. And though the tympanitic distension of the abdomen sometimes renders it difficult to appreciate the condition of the arteries within, yet I am sure that increased pulsation in those vessels, is not a constant symptom even in the most strongly marked cases of enteric typhoid fever. The condition of the arteries supplying the brain and lungs is much more readily examined; and while I have, in some cases, found the pulsation in both increased, in many others the beating of the carotids and the heart itself, has been feebler than natural. In the wards of the Hospital, especially, I have often met with cases, in which there was almost constant delirium of a passive, dull character, and dulness on percussion over the dependant part of the lungs, and at the same time the pulsations of the heart and carotids, though quick, were decidedly feeble. If these observations have been made with due care, they fairly authorize the conclusion that many of the local appearances of disease resulting from continued fever, lack that element of inflammation which consists in active increased determination of blood to the affected parts. But another element of inflammation, which the researches of Andral, Gavarret, Simon and others have led the profession to regard as essential as the conditions of the circulation described by Williams, consists in the rapid increase of fibrin and white corpuscles. And yet, all the analyses which I have been able to collect, as well as those made by myself, together with careful microscopic examinations, show both these constituents of the blood diminished rather than increased in all the forms of continued fever. Hence, if we give to the word *Inflammation* any definite meaning, or to the morbid processes to which it is applied, any constant elements, we must ascribe the local appearances of disease generally seen in the brain, lungs, heart, and abdominal viscera, after death from continued fever, to a process essentially different from true inflammation. By this remark I would by no means convey the impression that

local *inflammation* never complicates continued fever; on the contrary, one of the pathological specimens, to which allusion has already been made, consisting of a portion of the ilium and mesentery taken from a patient dead of typhoid fever, presents not only very extensive ulceration in the glandular patches of the mucous membrane, and enlargement with softening of the mesenteric glands, but also two or three patches of unequivocal inflammation of the peritoneal membrane covering the enlarged mesenteric glands, with a well marked layer of coagulable lymph, partially organized into false membrane adhering to the inflamed surface. Equally unequivocal marks of genuine inflammation are sometimes seen in the lungs and brain. But these are certainly occasional occurrences, or exceptional cases rather than the ordinary phenomena presented after death from continued fever. Hence they should not be confounded with the venous engorgement of the membranes of the brain, the diffused redness of the inner surface of the heart and large bloodvessels, the black engorgement of the dependent portions of the lungs, the enlarged and disorganized condition of the spleen and mesenteric glands, the discolored and ulcerated condition of the mucous membrane of the intestines, and the softening of the tissues generally, which constitute the common *post-mortem* phenomena detailed by all writers on this subject: these are doubtless the result of what Dr. Drake has styled *Passive Hyperamia*, a morbid condition much more closely corresponding with the *congestion* of Dr. Williams, than with his description of inflammation. If it is true that the symptoms during life and the analysis of the blood, show that in very many cases presenting extensive local lesions after death, two of the well known and essential elements of inflammation are wanting, viz.: active determination of blood to the affected parts, and rapid accumulation of fibrin and white corpuscles, it is equally true that the local changes themselves do not generally correspond strictly with the changes well known to result from unequivocal inflammation in the same structures. These latter are thickening effusions of serum or plastic lymph on the membranous surfaces; hepatization in the lungs; induration and suppuration in the spleen, &c. While, as already remarked, the appearances left in these

several structures after continued fever are, in a large majority of cases, those of simple venous engorgement, with enlargement and softening of texture. The alteration which has been most frequently mistaken for inflammation, is that state of the lung which Jenner calls "*lobular non*-granular consolidation." He describes it as follows, viz.: "externally, a portion of the lung in this condition has a mottled aspect; here and there are patches, varying in size from a single lobule to half or more of a lobe, of a deep bluish, chocolate, violet, or purplish slate color, bounded by a well-defined angular margin, crossed, if it includes more than one or two lobules; and mapped out into smaller patches by dull opague whitish lines. On closer inspection, the outline and the whitish lines intersecting the patches, are seen to be thickened interlobular septa. * * * * On section, the tissue corresponding to the dark patches is found to be of a deep purplish chocolate color, gorged with non-ærated bloody looking fluid, breaks down with little or no facility, nay, sometimes appears tougher than in health; has a uniform or nearly uniform section, i. e., *there is no appearance of granules, such are seen in the consolidated and non-consolidated state of so called vesicular pneumonia, etc.*"

Dr. Barlett remarks, in regard to this particular change in the lungs, that "it is quite unlike, in almost every respect, the second stage of inflammation, although the term *hepatization* has sometimes been applied to it." And he adds, "it is not indicated by any peculiar symptom during life."* This last expression may be critically correct, and yet I am stisfied that the symptoms during life, if not *peculiar* in their nature, are sufficiently so in their combination to prevent errors in diagnosis. I have not unfrequently met with cases of continued fever in an advanced stage of their progress, in which there was much dulness or torpor of mind, a leaden or purplish color of the prolabia, a short or enfeebled respiration, a quick and compressible or gaseous pulse, little or no cough, and generally no expectoration, though in some instances a paroxysm of coughing with the expectoration of a thin reddish mucous occurred at remote intervals. The patients complain of no pain in the chest and no dyspnœa, though if you request them

*See Bartlett on Fever, page 87. Ed. 3d.

to inspire a full breath, it is easy to see that they inflate the lungs but very imperfectly. Percussion over the infra-clavicular regions generally elicits no morbid sounds, but well marked dulness is found over some part of the lower lobe of one or both lungs.

Auscultation sometimes shows no other change than feebleness of the respiratory murmur, especially in those places presenting too great a degree of dulness; but in a far larger number of cases a mixture of the dry and moist ronchi are heard in the bronchial tubes, and a feebleness or entire suppression of the respiratory murmur over the lower and posterior regions of the chest, with increased vibration of voice. These symptoms and signs point with much certainty to the existence of increased density of some portion of the pulmonary tissue, and yet they do not include the true crepitant rale of the first, nor the coarse mucous ronchus and bronchophony with the red or purulent expectoration of the second stage of ordinary pneumonia. When recovery takes place in cases complicated with this consolidated state of portions of the pulmonary tissue, the convalescense is generally very tedious and protracted, characterized by a debilitated and short respiration continuing sometimes even after the patient has recovered a pretty good degree of flesh and apparent health.

In regard to the changes observed in the spleen, Dr. Bartlett coincides fully with M. Louis, in the opinion that they are not the result of inflammation. After giving some facts to corroborate this opinion, he adds: "In the present state of our knowledge, it is enough, perhaps, to say, that these alterations of the spleen, in typhoid, as well as in other fevers hereafter to be described, depend on some special and peculiar cause connected with the diseases in which they occur, the nature and operation of which are unknown to us; and further, that the lesions seem to be associated with that pathological element so obscure in its nature and causes, but so extensive and fatal in its results, to which the term *congestion* has been applied; and not with that other element to which the term *inflammation* has been applied."

The same remarks are certainly equally applicable to the ordinary changes observed in the brain and its membranes, the heart, and the liver. The only post-mortem appearances about which

there is much room for controversy, are those observed in the mucous membranes of the stomach and intestines, and the glands in the mesentery.

The question as to how far any one or all of the changes observed in the mucous membranes after death are peculiar to and characteristic of *typhoid* fever, I shall not discuss in this place. These changes consist of simple softening of the membrane, of discoloration, and of ulceration. In some cases we see but one of these alterations, and in others we find them all in different parts of the same membrane.

The first, or softening, occurs frequently in the stomach, especially in the larger curvature and near the cardiac orifice. The same parts are generally darker red than natural, and sometimes they are deeply ecchymozed.

In another class of cases the softened membrane is both paler and thinner than in health. The same alterations of color and consistence are observed in the duodenum, jejunum and colon, though much less frequently than in the stomach. In all these parts small irregular ulcers are also occasionally observed. But the mucous membrane lining the lower half of the ilium is far more frequently the seat of disease than any other portion of the alimentary canal. The color of this portion varies from a bright blush of redness to a dark brown. Sometimes the membrane appears thickened, and the villi more prominent, giving the whole surface a *mammellated* appearance; in other cases, the thickening is confined to the aggregated glands of Pyer, causing them to appear in some places more prominent than the surrounding membrane, and in others partially or even wholly destroyed by ulceration. The solitary glands are also often found enlarged, presenting the appearance of a whitish pustule or of a circular excavated ulcer. In some cases all these morbid appearances are observable at the same time in different parts of the same intestine. Such is the fact in regard to a specimen now before me. The mesenteric glands most nearly connected with the ulcerated portions of the intestine are generally enlarged and softened, sometimes being reduced almost to a semi-fluid or creamy consistence. Are these changes in the mucous surfaces and mesenteric glands the

result of inflammation or do they arise from that same altered relation between the solids and fluids that gives rise to the enlarged and softened spleen, the engorged lungs &c. &c.? Some of the most eminent investigators of this subject, deny that inflammation has any necessary connection with these changes. Not a few regard the ulcerated patches as resulting from a previous deposit of matter in the glands, its subsequent softening and sloughing away leaving ulcers, much in the same manner that tubercular matter is deposited and subsequently softened in the lungs. Another and perhaps more numerous class of pathologists regard the disease of the aggregated gland of the ilium as specific and peculiar, being strictly analogous to the cutaneous eruptions in that class of diseases styled eruptive fevers. By such the typhoid fever is viewed as a separate and specific disease, to which the disease of Peyer's glands bears a relation very similar to that between the fever and the eruption in Variola. This view is favored by the writings of Louis, Jenner, Bartlett, Gerhard, Flint, &c., and has made a pretty strong impression on the professional mind of this country. Its merits will be more fully considered, however, under the head of Diagnosis and Varieties of Fever. But even the larger portion of this class regard the general softening of the mucous tissue, whether in the stomach or intestines, as not inflammatory, but originating from the same morbid processes which induce the softening in the spleen and other tissues; while the specific affection of the aggregated glands is regarded either as a peculiar inflammation produced by the specific action of the *febrile poison*, or as the result of a primary deposit and its subsequent softening, leaving *atonic* or non-inflammatory ulcers, &c.

Throwing aside for the present, the so-called peculiar affection of Peyer's glands, I think a careful examination of all the facts now accessible to the profession will lead every reflecting reader to the conclusion, that we must give to the word inflammation a very wide and indefinite meaning, or else seek for an explanation of the morbid changes which are apparent, after death from fevers, in the important organs and tissues of the body, in some other process than that of ordinary inflammation. I do not mean to assert that genuine inflammation does not often spring up in the progress of

fevers, and become a serious complication, leaving unmistakeable evidence of its existence after death; but simply that the most common post-mortem appearances observed in the viscera of the head, chest, and abdomen, are essentially different from the results of ordinary inflammatory action. And, hence, that the maxim so much insisted on by Dr. Southwood Smith, that "the only morbid condition of fever, of which we have any knowledge, and over which the medical art has any control is that of inflammation," is not true.

Neither will the assertion of Dr. Stokes, that "in the great majority of cases there is local disease of some part or other of the body, and that a vast proportion of fever patients are carried off by LOCAL INFLAMMATION," bear the scrutiny of extended observation. On the contrary, when fevers prevail in their most malignant form, and prove most rapidly fatal, post-mortem examinations reveal the least evidences of local changes of any kind. It is true that when death occurs after a more protracted course of fever, local changes are generally observed in some of the important viscera, but in the large majority of cases these differ essentially, as already detailed, from the well-known results of inflammatory action.

Most of these differences have been stated in connection with the allusions to the changes observed in particular organs, but they may be presented more clearly and forcibly by the following comparison, viz:

FEVER.	INFLAMMATION.
1st.—If my own microscopic observations are correct, or in any degree reliable, both the white corpuscles and fibrin, especially the former, are *diminished* not merely in the general mass of the blood, but equally so in the capillaries of the spleen, lungs, and other tissues presenting evidences of disease after death.	1st.—One of the most constant and well known effects of inflammation is, the rapid accumulation of *white corpuscles* and *fibrin* both in the general mass of the blood and in the local seat of the disease.
2nd.—The redness so often observed after death from fever	2nd.—The redness and swelling of an inflamed part are gen-

of membranes of the brain, the mesentery, the mucous surface of the stomach, the spleen, &c., is evidently produced mainly by accumulation of blood in venous capillaries and veins, and is not attended by any increase of white corpuscles in the part.

3rd.—All the organs or viscera presenting morbid appearances after death from fever, are *softened* in texture, and very rarely present either plastic exudations constituting false membranes, or purulent matter.

4th—The viscera most commonly affected in fever, such as the spleen, the heart, the mesenteric glands, &c., are generally affected throughout their whole parenchymatous structure alike. Thus, if softening has commenced it generally involves equally the whole thickness of the tissue. This is very unlike ordinary inflammation.

erally, if not always dependent on accumulation of blood in the arterial capillaries, with effusion or exudation of white corpuscles and liquor sanguinis into the texture of the part affected.

3rd.—The arterial congestion and infiltration of liquor sanguinis in inflammation tends directly to produce: first, induration or hardness; second, pain; third, suppuration; and fourth, gangrene.

4th.—When inflammation attacks an organ it seldom if ever affects its whole substance alike. but presents different degrees of progress at different points; thus we find simple congestion, plastic exudation, and suppuration or gangrene, all at different points of the same organ or tissue.

Such are the more important differences between the changes induced in the solids and fluids by fevers and inflammations; and surely they are sufficient to warrant the inference that the two series of phenomena are not identical either in their origin, progress or final results. What, then, is the true character of the local changes established during the progress of fevers, especially of the continued type? Are they the effects of *congestion*, as stated by Dr. Bartlett, or of Passive Hyperæmia, as it was styled by Dr. Drake? That more or less congestion generally exists in the different organs, chiefly affected, is undoubtedly true. But is this congestion the cause, or merely an accompaniment of the morbid processes set up in the tissues?

That it is the chief cause of the enlargement in those organs that undergo a change of bulk, such as the spleen and glandular structures, there is little room for doubt; but several facts would

seem to show, that the important change of texture—the general *softening* of the tissues—which constitutes the characteristic lesion of the solids in almost all fevers, is wholly independent of the congestion. Thus we find portions of the mucous membrane of the stomach and intestines affected with various degrees of softening, from a slight alteration of consistence to complete disorganization without any increased redness or thickness, or other evidence of congestion. The heart, too, is often altered in consistence without any appreciable alteration of size or vascularity. Again, in those organs which present the most marked appearance of congestion and enlargement, like the spleen and mesenteric glands, the alterations of texture are, by no means, in a direct ratio to the degree of apparent congestion, as should be the case if the former resulted from the latter. On the contrary, in many cases where the spleen was most disorganized, it was least changed in size; and M. Louis found the liver softer than natural in one half of the typhoid cases he examined, but in very few was it either enlarged or more vascular than natural. These facts show, not only that neither congestion, passive hyperæmia, nor inflammation, are the *cause* of the alterations of texture commonly found in the solids after death from fever, but they strongly enforce the idea, that if we would comprehend the philosophy of the febrile state, either in its nature, progress, or results, we must proceed a step beyond those morbid conditions called "nervous depression," *congestion* and *inflammation*, which have so long filled the field of vision, and served much the same purpose with pathologists in explaining the nature of disease, that the word *bilious* has with the practitioner in satisfying the too great inquisitiveness of his patients. That nervous depression, congestion, and sometimes inflammation accompany the febrile state, no one doubts.

But that either one, or all of them, combined, constitute essentially the fever, or any particular stage of it, we deny. They are accompaniments and consequences rather than essential ingredients or causes.

Their existence may add to the gravity or fatality of the disease. Nay, their location and extent may render them the chief sources of danger in individual cases; and therefore they are al-

ways to be looked for and guarded against by the faithful practitioner.

Whoever has read the preceding pages carefully, (and I presume the number is small who have had the patience to do so) has already perceived two things, viz.:

First, that, in my estimation, fevers, properly so called, are truly idiopathic and general diseases, affecting essentially the solids and fluids of the whole system.

Second, that my views neither coincide with the exclusive *solidist* doctrines of Brown, Darwin, Cullen, Rush, Jackson, and Paine, nor with the modern *humoralist* or chemico-physiological dogmas of Liebig and his followers. That there is, at present, a strong tendency in the profession to a strictly *humoral* pathology; by which I mean a disposition to look to the fluids of the system both for the causes and products of disease, and to strictly chemical changes for an explanation of morbid phenomena. It requires no very profound research to find an adequate reason for this. In the first place, the exclusive solidist doctrines of the last century, were not only found to be erroneous in many respects, but also incapable, by themselves, of explaining many of the physiological and pathological facts constantly being developed. In the second place, the rapid advances made in animal chemistry, and still more, the application of the microscope to physiological researches, leading rapidly to the discovery of many new and important facts, very naturally turned the attention of the investigating portion of the profession strongly in that direction. So much so, indeed, that not a few seem ready to discard all consideration of vital properties in the solids, and seek in the fluids and chemical actions alone the explanation of all the phenomena of health and disease.

This, too, is in strict accordance with the well known tendency of the human mind to vibrate from one extreme to the opposite, whether acting individually or in masses.

The present tendency of medical investigations, however, is not without its advantages. It has already made us acquainted with the composition of the blood and the secretions, as well as with many of the changes they undergo in the varying conditions of health and disease.

They have unfolded to our view, also, the intricate texture and organization of the solids to an extent scarcely thought possible by the generation who preceded the one now on the stage of action. And yet we may say with truth, that the great work of investigation with the test glass and the microscope has only just begun; that there is still a rich and almost boundless field open for investigation, which needs to be cultivated with all the ardor of the most enthusiastic, and yet with the patience and care of the most incredulous. I would by no means discourage investigations, by every means in our power, concerning the composition and qualities of all the fluids of the human body, the changes they undergo in health and disease, and the extent to which they are amenable to ordinary chemical laws. It is only when these investigations are made to occupy the whole mind, to the exclusion of a consideration of all *vital* properties or forces in the solids, that they become objectionable or liable to lead to erroneous conclusions. The great truth, that the solids and fluids of the living animal body, constitute only parts of one whole; that they are so mutually related to each other, that the properties of the one cannot exist without the existence of the other, should be kept constantly in mind. We may push our researches concerning the fluids to the utmost limit of human comprehension, with the application of chemical laws to explain the changes which they undergo, and with that knowledge *alone*, we shall never be able to give a rational explanation of any general disease to which the human system is liable. For, after all our efforts to explain the phenomena of *life* by mere physical laws and forces, we are compelled to come back dissatisfied with our own efforts, and acknowledge that there are in *living* beings *vital properties* or forces, which control, or at least modify the action of all mere physical forces. These *vital* properties seem to be inherent in matter in a state of living *organization*; and hence, belong more especially to the solids, beginning with the most elementary cell that floats in the blood and extending to the most complex organizations. To attempt an explanation of the phenomena of health and disease by a knowledge of the fluids alone and the physical laws and forces which influence them, is like attempting to solve a problem in mathematics without recognizing

one of the essential propositions of which it is composed. This is the error of the *humoralist*, whether of ancient or modern times. On the other hand, to attempt a similar task of explanation, by any amount of speculation or reasoning, however logical or acute it may be, concerning the vital properties or forces alone, is like the task imposed on the ancient Israelites by their Egyptian task-masters. It is an attempt to explain phenomena by a knowledge of laws and forces, without an adequate recognition of the materials on which those laws and forces act. This is the error of the exclusive solidist. The fluids of the living animal organization, contain, at once, the materials that supply and the products that proceed from such organization. In a word, they contain the elements that excite, the materials that nourish, and the refuse matter that has served its purpose among the ever-changing atoms of living beings; while the solids contain the vital properties that give direction and character to the whole. In the mutual relations and actions of these lies the true philosophy of life; and in a careful study of these relations, with all the collateral influences that may be made to act on them, are we to seek for the philosophy of disease.

It is objected, perhaps, that this leads us a step beyond the legitimate object of study; that a knowledge of matter as revealed to us in the physical world and the physical laws and forces that govern it, is all that the human mind can comprehend or control; and that *vital* properties and forces are mere imaginary conceptions of which we can know nothing. This objection, however, is based on a false conception of what constitutes our knowledge of inorganic matter and physical forces. It is based on the idea that we know what *matter* and its laws are, on the one hand, and that we propose to know what *vitality* and vital laws are, on the other; neither of which is true. We know nothing of matter in its *essence* any more than we know of the essential nature of vitality. Neither do we propose to investigate either, as they are alike beyond human comprehension.

But we can investigate and know the *properties* of matter and many of the *laws* that govern those properties in their influence on other matter. For instance, we know nothing of the essential

nature of electricity; but we do know that there is an agency, which under certain circumstances attracts matter and under others repels it again, and by virtue of this property of attraction and repulsion, the laws governing which become familiar to us, we see that it plays a most important part in the almost infinitely varied phenomena of nature. So, too, we know nothing of the nature of life or vitality; but we do know that all living organized matter possesses a peculiar property which renders it susceptible to the presence of other matter, and gives to that presence actions and changes essentially different from those which take place when the same matter is present with unorganized or dead bodies. To this property we give the name of *vital susceptibility*. To the peculiar arrangement of the particles of matter with which it seems to be inseparably connected, we give the name of *organization*. Of the special agency by which matter is made to assume this organization and manifest this property of susceptibility we know nothing, any more than we know of the essence of that agent that gives rise to the well-known phenomena of electrical attraction and repulsion. But our knowledge of the properties of both is gained in precisely the same manner, namely, by observing their effects and the laws that govern them, and is therefore equally legitimate and equally certain.

The question whether the vital properties depend on an agency, *sui generis*, and independent, or on some modification of the general physical forces, as intimated by Dr. Carpenter, is wholly immaterial, so far as pathological investigations are concerned. For aught we know, light, caloric, electricity, and galvanism may be only different manifestations of one and the same subtle agency; and if this were demonstrated to be the fact it would in no wise alter the relation of these forces to the physical changes which take place in matter. Their several relations and manifestations are so far peculiar that they would require specific names and distinct study as much as in times past. They would still be designated and studied as light, caloric, electricity, &c.

In the same manner, if we should concede, (which I am by no means disposed to do) that vital susceptibility is only a modification or peculiar manifestation of one or more of the ordinary phys-

ical forces acting in connection with matter, it would not advance us a single step in either physiological or pathological knowledge. The modification is so great, the manifestation so different from anything exhibited by the physical forces acting in connection with inorganic matter, that a specific and distinctive name would still be required to designate it.

To style that property of living matter which has been called *susceptibility*, caloric, or electricity, would have no other effect than to confuse our ideas and confound our language, without adding an iota to our knowledge.

In studying the great and important class of diseases styled *fevers*, I have endeavored on the one hand to give some clear conception of those properties which were peculiar to and inherent in organized matter, and which I designate as *vital* and elementary, distinguishing them from primary functions as manifested by particular parts; and on the other hand, to note the relations which the fluids of the body and the exterior physical agents bear towards the vital properties of the solids, and the changes which take place in both during the progress of diseases. During this study, I have seen clearly in my own mind, the philosophy of fevers in their development, progress, and results. It has been apparent where they converge to one point, as it were, presenting a certain degree of identity or *oneness*, and yet diverge so far as to present widely different phenomena, and lead to equally different results. Whether I have been fortunate enough to select such language as to convey clearly the ideas I wished to express, remains to be seen. Nevertheless the more obscure topics involved in the general subject will be further illustrated in the next chapter, on the diagnosis and varieties of fever.

SELECTIONS.

From the Southern Med. and Surg. Journal.

Tetanus, successfully treated. By J. C. Billingslea, M.D., of Tuscaloosa Co., Alabama.

My Dear Sir—Below you will find an account of a case of tetanus which fell under my care recently. If you think it worthy of a place in your journal you can publish it.

April 27th, 1853. Was called to see a young negro man, aged 18 years, the property of Mr. F. I was informed that, four days previous to this, he had been thrown from a mule, and after the fall, he complained of "the small of his back and breast hurting him." I found the boy sitting up at 12 M. He had considerable fever; pulse 120 per minute, and resisting; tongue foul; skin very dry; not much ability on the part of the patient to move his lower extremities; considerable tenderness of the spine about the last dorsal and first lumbar vertebræ; his chest somewhat tumefied and painful to touch, just above the epigastrium. He said the mule had trodden on him. In addition to these, my attention was called to his left foot, the great toe of which had been frostbitten nearly eighteen months before, but was thought by his master to be *well*, until he received the fall. The toe was much swollen, and had a cavity in the end, about a quarter of a inch in diameter, which extended to the bone and was filled with pus. The whole foot was very much swollen and tender. He did not know whether it was hurt in the fall or not, but said it did not commence swelling till after the fall. He was robust and strong. I bled him from a large orifice, but took only a small quantity before a sensible impression was made on his pulse, and he expressed himself as free of pain, and much better. I then applied cups over the tender portion of the spine, and afterwards sinapisms to the same—then ordered him the following: ℞. Calomel, Dover's powders and sulph. quinine, each 12 grs., divided into six powders—one to be taken every two hours. Tinct. of iodine to be applied to the foot, followed by a cold poultice. He had no tetanic symptoms that I discovered at this visit, although he said the pain in his chest came on by paroxysms.

28th, 11 o'clock, P. M. Was called in haste to him. I found him with pulse 120 per minute; tongue moist and cleaning; slight diaphoresis; and whenever touched, or spoken to, he would be

thrown into violent opisthotonos, and during each spasm would complain of his chest. I think there was not more than three minutes of repose between the spasms. I was informed that he had been in this condition all day—his medicine had not acted on his bowels; fortunately, he could open his mouth about half an inch, and deglutition was not impaired. I gave him an enema of castor oil and spts. of turpentine, which I repeated frequently, until I procured a full evacuation of his bowels—then gave him a warm bath, applied cups to the spine, and afterwards a blister to the same. After the bath, he seemed some better. Between that time and daylight I gave him about an ounce of paregoric. In the mean time the paroxysms were not so frequent, and he slept some.

29th. I had the room darkened early and kept quiet. At 6 o'clock, A. M., ordered four grs. of quinine every hour, with just enough paregoric to keep him dozing (which was not much, as he was very susceptible of its effects). The most nutritious diet admitted.

30th, 8 o'clock, A. M. I am informed that the paroxysms were not so frequent or severe yesterday as they were the day before; slept well last night and was not then conscious of spasms, but now having one every few minutes—pulse 110 per minute. Evacuated his bowels by enema; continued the quinine as yesterday. At this visit, I discovered a fluctuating tumor about the size of a hen's egg in the instep of the diseased foot, which was very painful on pressure. The fluid did not feel like pus. The swelling was fast leaving the foot on the application of poultices and tinct. of iodine. I now began to think that this toe was the cause of all the trouble; and as the foot was in a very unhealthy condition I did not like to remove it (the toe) without first advising with some older surgeon.

May 1st. Was met by Dr. Hayward, of Tuscaloosa, in consultation. After a thorough examination, he also concluded the toe was the cause of the tetanus, but thought it best not to remove it in the present condition of the foot. His symptoms were a little better to-day; pulse 100 per minute; spasms not quite so frequent. Dr. H. could see no reason for changing a practice which seemed beneficial, but looked upon his recovery as *very* doubtful. We ordered 10 grs. quinine and ¼ gr. morph. every two hours; an enema of castor oil and turpentine.

May 2d. 8 o'clock, A. M. Just as he was yesterday. I ordered 15 grs. quinine and ¼ gr. morphine every two hours. This was kept up all day and night.

May 3d, 8 o'clock, A. M. Complains of his head roaring; pulse 90 per minute; profuse diaphoresis; skin cool; a spasm about every 15 minutes—said he was very weak, and appetite not

good. Ordered 10 grs. quinine and ¼ gr. morphine every three hours, and food *ad libitum*.

May 4th. Very deaf; had no spasm last night, but slept all the time, only when awaked to take his medicine—pulse 72, and weak; skin cool; profuse diaphoresis; appetite returning; has a spasm about every half an hour. I ordered 5 grs. of quinine, and ¼ gr. of morphine every two hours. In the afternoon he became partially blind from the effects of the quinine, and I omitted it for six hours, when this unpleasant symptom subsided.

May 5th. No spasm last night, but an occasional one through the day. Ordered quinine 4 grs. and ¼ gr. of morphine every three hours.

It is useless to give further details. Suffice it to say that his improvement was gradual and continuous, and in two weeks he had no symptom of tetanus remaining. I gave the quinine in diminished doses for a week after. The tumor in the instep broke, discharging a considerable quantity of thin, unhealthy pus. I dressed this and the toe with quinine, and put the boy on cod-liver oil and a little brandy three times a day. At this time he is fatter than I ever saw him, and his foot nearly well. I think his toe will also get well without an amputation.

I had just read the case reported by Dr. Pye in the New Orleans Medical Journal, and re-published in your Journal in March. I thought smaller doses of quinine than those he recommended would answer the same purpose; for, the absorbents acting very suddenly and powerfully might produce alarming, if not fatal results, after such large quantities had been administered.

From the Southern Med. and Surg. Journal.

Quinine in Cholera Infantum. By G. W. Booth, M.D., of Carrollsville, Miss.

As the season is near at hand when that scourge of infancy, Cholera Infantum, usually makes its appearance, I will again invite the attention of the profession to the views I entertain of its etiology and treatment as published in some of the medical journals in 1851. In the communication referred to, I stated it as my opinion that it was of malarial origin. There are many reasons that I could give to sustain the correctness of this opinion, but I deem it unnecessary at this time.

My views respecting the origin of the disease influenced me to use the great and approved antiperiodic, Quinine, in its treatment. The success I met with in combating the disease with this article still farther confirmed me in my conviction as to its predisposing cause. I earnestly solicit the profession to give Quinine a fair

trial in Cholera Infantum; I feel confident that no one will regret the experiment. I use other articles to meet particular indications, such as acetate of lead, and calomel, in small doses, for controlling the discharge from the bowels, acting on the liver, &c.

From the Buffalo Medical Journal.

An Account of Experiments and a post-mortem Examination; Illustrating the Physiology of the Excito motor System of Nerves. By S. B. HUNT, M.D., Buffalo, N. Y.

ON the 12th of July ult., Dr. Bailey, of this city, requested Dr. Bowen and myself to visit an acephalous infant, born at 11 P.M, the night previous. We found the child alive, but apparently moribund. With the consent of the mother, we removed it to Dr. Bailey's office.

The case presented the following features:—From the superior part of the frontal sinuses, the calvarium sloped directly backward; being covered with an unusual thick scalp. At the point of the anterior fontanelle, there was a deep fissure in the integuments, extending transversely, and adherent to the skull at its base. From the posterior fontanelle, protruded a tumor inverted in a membrane reflected from the cerebral cavity. This tumor resembled precisely, and undoubtedly was, the cerebellum inverted in the dura mater. Otherwise the child was very well formed.

It breathed irregularly—respirations from five to ten per minute, and suspicious in character. Pulse, at the carotids, 70. Surface cold. When undisturbed it is perfectly motionless; but if its extremities are pinched, it withdraws them. Reflex and ganglionic life are present; but we could obtain no evidenee of perception or volition. When the settee on which it lay was rudely jarred, it would start. It uttered no cry, except when the tumor was dragged upon, it gave the sound peculiar to lesion or disturbance of the medulla oblongata. It swallowed water, and sucked vigorously when the finger was placed in its mouth. The eyes moved, and the pupil contracted when the lids were opened.

It will be seen from this description, that all muscular movements dependent upon the spinal axis were complete, as were the ganglionic actions. Sucking, deglutition, respiration, prehension, iritic contractibility, and the circulation were all there; and yet the child was, (so far as any living soul, mind, perception, or volition were concerned,) to all intents and purposes, dead. This will be verified by the post-mortem, which took place on the evening of the 13th. The child had been then dead a few hours, having been returned to its mother for proper care as long as it should continue to breathe.

Autopsia. Scalp very much thickened, and reflected upon itself. Carried an incision from ear to ear, and everted the anterior flap. The posterior flap was split down, and the tumor isolated at its neck. The bones were unusually firmly ossified, and their location was so abnormal as to confuse the dissection. The calvarium was so depressed that the surface of the calvarial dura mater was in contact with, and in some places adherent to, the base of the skull. On removing the culvarium, the sella turcica (considerably distorted) and the fossæ of the base of the skull came immediately into view. There was an entire absence of the cerebrum. The cerebellum lay (as before stated) on the outside of the cranium. At the posterior fontanelle this cerebellar tumor narrowed into an apology for the medulla oblongata, which projected directly downward into the spinal canal. From the sides of this pedicle various nervous filaments originated, and passed out at the foramina and fissures of the skulls It was impossible to recognize them, but there could be seen no optic tract or thalami, however rudimentary. Probably the first and second pairs were not developed. The existence of the third, fourth, and first branches of the fifth pair was demonstrated by the experiments before death. Also the sympathetic, glosso-pharyngial, facial, and I believe from the symptoms present, all those cerebral nerves which, originating in the cerebullum or medulla oblongata, are distributed to muscles. There was no *pons varolii.*

This case is interesting inasmuch as it demonstrates that a cerebrum is not essential to organic and reflex life—this child having lived thirty-six hours without one. It also proves that muscular motions, even those apparently exhibiting judgment, such as the withdrawal of the foot from the pinch of the forceps; are not necessarily volitional, or at any rate have no connection with any action of the brain. The reflex actions exhibited by this child furnished the same evidence which Dr. Dowler derived from his "Nilotic saurian" (*Anglice alligator*) experiments; but they do not, to my mind, in any manner contradict the physiology of Marshall Hall; neither do they prove the existence of volition apart from cerebral action. For volition and perception most necessarily have the same locale in the nervous system, and though reflex motions may *appear* volitional, it is simple absurdity to suppose perception resident in any part but the cerebrum.

From the Buffalo Medical Journal.

Treatment of Stricture of the Urethra by Rapid and Free Dilatation. Illustrated with cases. By PAUL F. EVE, M.D., Professor of Surgery at the University of Nashville.

PROF. EVE is not a prolific, certainly not a prolix writer. When he does write he tells in a plain, condensed, and scientific man-

ner, whatever he has to say. And this little *brochure*, like everything from his pen, has a merit which may not be estimated by its brevity, or the modest style in which it is put forth. In a few effective sentences he proves that our previous treatment of stricture was not radical, but only palliative—that the liability to a renewed coarctation amounts almost to certainty. He then proposes the treatment of M. Benique, by very rapid dilatation. But we cannot do better justice to Mr. Eve, than by segregating some extracts from his treatise. On page 8 he says:

"I have not seen M. Benique's 'Reflections and Observations on Strictures of the Urethra,' but my own have brought me to the conclusion, that the universal practice of regulating or measuring the *size* of the dilating instrument, by the *orifice* of the urethra, has been unfortunate, and lead to the general result of this plan, failing to remove the complaint. The diameter of this excretory canal, it is well known, is far from being uniform, neither is it cylindrical. All agree that the orifice is the most restricted. This may be assumed at 2 or 2½ lines in diameter, while that of the urethra itself measures 3½ to 4 lines. It is a closed tube, but if the external meatus be incised or gradually dilated, it will readily admit an instrument of the caliber last mentioned. Like all openings of mucous surfaces, this one is naturally contracted, and it requires but an experiment, simply to enlarge it, to convince any one who may doubt that its diameter is not considerably increased beyond it. The well known practice of lithotritists to introduce their large instruments by incising the meatus, is proof positive of this fact, which should be more generally known, viz.: that this passage is much more capacious than its mouth. How then can a bougie which fills only the orifice of the urethra dilate a portion of the canal that is primitively much wider; or still more difficult, restore a contracted part to its original size? To this there is a physical impossibility. Now by a large seized bougie, or catheter, employed against Stricture is meant one that fits the external opening and not the passage beyond; therefore, must it necessarily follow that that dilatation as commonly applied, while it may relieve for a time, cannot cure the affection. But let an instrument measuring 4, 4½, or 5 lines in diameter as recommended by Benique, be cautiously, gradually insinuated into a restricted portion of the urethra, by incising or dilating its orifice; the impracticability of the operation is removed, the disease can be reached and may then be cured.

"Since writing the above, I find from the last number of the Philadelphia Medical and Surgical Journal, that the late celebrated Dr. Physick, entertained similar views to those here expressed.

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"In recommending full and rapid dilatation in the treatment of Strictures, and contending that it is almost the only certain way of effectually curing them, I am at the same time decidedly opposed to the forced or sudden introduction of instruments into the bladder through the urethra. This practice attempted to be established by M. Mayor, of Lausanne, Switzerland, a few years ago, is utterly opposed. It has only been after other means have failed that forcible pressure against a stricture was resorted to, in order to relieve a distended bladder: but in every instance violence was avoided and great prudence exercised. In catheterism every movement should be made with caution and skill, perseveringly, yet patiently, that the instrument may insinuate itself, be drawn as it were into the bladder by an invisible yet tangible suction power, and not suddenly, violently or forcibly thrust into it. And while I agree that in every case when the instrument excites irritation it should be removed, still it must be manifest that the more rapidly a restricted portion of the urethra is restored to its original size without causing pain or inflammation, the more economically, in every respect, will be the cure. But as this disease lies concealed in a passage wider than the orifice leading to it, free access to its location can only be had by enlarging this opening. In cases of rupture of the urethra or of its division by an operation, dilatation is still considered essential to overcome the tendency to contraction and coarctation of cicatrices. The lymph effused under these circumstances soon becomes converted to mucous membrane, and to expand it occasionally is certainly the proper way to adapt and mould it to the healthy functions of this canal; and experience has proven, that the gentle passing of a smooth instrument does not materially interfere with the extension of the cylindrical epithelium over a wounded surface. In advocating a new method of dilatation to cure stricture, let it then be understood that its cautious and gradual application, though it be rapid and ample, is none the less insisted upon; and sudden or forcible measures honnestly condemned.

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"It is admitted that these cases are defective, especially in regard to time, as confirmatory of the treatment of urethral stricture now proposed and herein recommended; but they are the most favorable which have occurred in the the brief space since my return from Europe, and are presented to sustain the following new positions:

"1st. That while dilatation is the proper treatment for Stricture of the Urethra, *this* has hitherto failed to effect a cure, because in the ordinary mode of applying it, *the seat of the disease has not specially been acted upon by the dilating instruments.*

"2d. To cure Stricture, the *orifice* of the urethra must be so

enlarged that the *canal beyond it may be dilated to its original size*, which we ought to recollect is about *twice* that of the opening leading to it. Instead, therefore, of being satisfied with introducing bougies of *two lines in diameter* through a restricted portion, this should measure *four to five lines* in thickness.

"3d. *There is no necessity to confine a patient to bed* in treating Stricture; *once an instrument has been introduced, it has done all it can to expand the passage and should be withdrawn, that others larger in size may be immediately substituted.* While this process ought to be cautiously and very gradually conducted, still the more rapidly and freely it can be applied, provided no pain is excited, the sooner the disease will be removed.

4th. By this method Strictures may be *permanently cured in a few days, without suffering, inconvenience, or exposure to serious consequences.* S. B. H.

From the Bulletine della Scienze Mediche di Bologna, Nov. and Dec, 1852, p. 385. Dublin Quarterly Journal of Medical Science, May 1853.

On the Employment of the Albuminate of Iron and Soda as a Therapeutic Agent, in various cases in which Ferruginous Preparations are indicated.

By ANGELLICO FABBRI, Pharmaceutical Chemist at Gubbio.

SIMPLE contact, at the ordinary temperature of the atmosphere, of white of egg with a salt of iron and soda, is capable of instantly producing a soluble albuminate of iron and soda, or an albuminferrate of the alkaline base. The chemical combination of this compound is such, that it is not altered by the yellow ferrocyanide of potassium, the most delicate test of the salts of iron, unless a few drops of acid: as for example the hydrochloric, be previously added to the soluble albuminate—thus proving that this decomposition cannot be effected by the agency of the alkalies, but only by some acids, since the potassium of the cyanide is not able to displace the oxide of iron, becoming oxidized at its expense, and setting the metal free, as occurs with the other ferruginous preparations. Considering that we find in the blood albumen, soda in excess, and iron, and having shown how these three bodies, by simple direct contact, form a soluble salt, the chemical combination of which is so powerful that it is not destroyed by the most delicate reagents, may we not fairly infer that the iron exists in the blood as an albuminate of iron and soda; and would it not therefore be reasonable to administer iron in the various diseases in which it is prescribed, principally in reference to the state of the sanguinous system, in the form of albuminate, as that in which nature itself has placed it within our organism—one of the products, so to speak, on which our life depends. When I read in

works of chemistry that the yellow ferrocyanide of potassium is not capable of demonstrating the presence of iron in the blood, until a stream of chlorine has first been passed through the latter to destroy its coloring matter, I am confirmed in the opinion that the iron exists in that fluid as an albuminate of iron and soda, because this salt, requiring the addition of an acid to render it capable of detection by the cyanide, is supplihd with it by the chlorine, which, in destroying the organic coloring matter, becomes converted into hydrochloric acid by uniting with their hydrogen. Physicians have been long puzzled, and are still at a loss, how to administer iron, a most valuable remedy, in the manner most suitable to the internal organism; hence the great number of preparations of this metal. Some object to its saline combination with mineral acids, on the ground that these are inorganic, and they prefer giving it in the metalic or oxidised state, leaving to the acids of the stomach to form with it compounds which may be carried into the circulation. Others, unwilling to run the risk of having the greater part of the iron—little, or not at all acted upon —expelled with the fœces, prescribe in the saline state, but combined with organic vegetable acids; hence we have the malate, tannate, citrate, &c., of iron. Others, still more scrupulous, wish to have it united to acids of an animal nature, and prefer the lactate, the cyanide, &c.; and I, going still farther, would recommend its employment in the state of albuminate of iron and soda, requesting physicians to take into consideration what I have advanced, and to ascertain if practice will in this instance corroborate theory.

In preparing the albuminate of iron and soda, I employed the following process: Take 112 grs. of caustic soda, and 104 of sulphate of iron. Having dissolved both in a sufficient quantity of distilled water, let the solutions be poured on the whites of four eggs previously beaten up; let all now be shaken together and poured upon a filter to separate the hydrated oxide of iron which has precipitated, since all the iron is not in this case converted into albuminate. To the filtered liquid, which now contains, in addition to the albuminate, sulphate of soda formed by the decomposition of sulphate of iron by the soda present in excess, lime water is to be added, to decompose the sulphate of soda, by which an insoluble sulphate of lime is precipitated. To separate the latter, the mixture is to be again filtered; and as the filtered fluid will contain an excess of lime, it is to be subjected to the action of a stream of carbonic acid, care being taken to avoid using an excess of the latter, and again filtered to get rid of the insoluble carbonate of lime thus formed. The filtered fluid is now to be allowed to evaporate in a wide, shallow vessel, and with the aid of the heat of a stove, until it is reduced to a pint. A clear orange yellow,

slightly saltish, chalybeate solution is thus obtained, which, as already mentioned, does not give a precipitate with ferrocyanide of potassium without the previous addition of an acid. Each ounce of this liquid contains approximatively four grains of the albuminate *plus* an excess of albumen and soda, as may be seen by referring to the process employed: the solution consequently has a slightly alkaline re-action. It is desirable that the soda should thus be present in excess, in order that the compound shall be conformable to the state in which it exists in the blood, where we find the albumen rendered alkaline by an excess of soda. This albuminate of iron and soda is represented by the following formula: C^{30} H^{50} O^{10} + HO + Fe^2 O^3 + Na O + 2 HO = AL Fe^2 O^3 + 2 HO water. As the albumen loses a portion of its nitrogen in order to be converted into albuminic acid, we must suppose that a portion of the soda by its presence determines the formation of a fatty matter at the expence of other principles of the same albumen, and then becomes saponified. I have given the formula of the albuminate of iron and soda above, neglecting the excess of the albumen, which, though united to the liquid, perhaps with some other soluble salts of the albumen of the egg, (chlorides,) I do not consider to form a part of the saline compound, which may be obtained in radiated crystals by evaporating the solution to dryness.

From the Boston Medical and Surgical Journal.

To the Editor of the Boston Medical and Surgical Journal.

Sir:—As the lecture season is about closing, I will devote an hour to give you a few medical items.

The Lectures of the Faculty of Medicine commence the first of November, and continue till the second week in August; although private instruction continues during the whole year. As the Faculty is composed of twenty-six professors, of course there are various changes among the lecturers during so long a session. One very interesting feature in the medical school in Paris, is the system of "*concours;*" some account of which may not be devoid of interest to your numerous readers. Having had a fair opportunity, during the past season, to witness how this system is conducted, I will give you a brief acccount of it. Formerly the professors obtained their appointment by *concours*; now they are appointed by the *Emperor*, but all places below them are determined by this test—such as *agreges*, *internes* of the hospital, &c. Agreges are under-professors—*corps reserve*—kept to fill the places of the professors, if absent or sick; or, in case of death or resignation, to supply their places permanently. During the past season, there have been *concours* in medicine, surgery, anatomy, obstetrics and

chemistry. The qualifications of a candidate to be an agrege, are; 1st, that he must be French by birth; 2nd, 25 years of age; 3rd, a graduate as doctor in medicine. The term of *agregation* is nine years, and the trials take place every three and six years; consequently only one half of the places are filled at each concours.—That is in medicine there are ten agreges, and five are chosen at each trial; in surgery six, and three are chosen; and so on in other departments.

As a specimen of the trials, I will select those of medicine and surgery as fair examples of others. In the first place, a series of subjects in medicine, surgery or physiology is selected by the Faculty, and given to the competitors by lot, who have five hours allowed them to prepare themselves, and who are obliged to speak extemporaneously. Second, subjects in mediciue or surgery are given out, upon which candidates are allowed three hours time for preparation, in the presence of one of the judges, with closed doors and without books. Each candidate has forty-five minutes to speak upon his subject at his trial. Third, subjects, medicine or surgery; term of speaking the same, with twenty-four hours' preparation at their own domicile. Fourth, lessons clinique; time the same. Two patients are selected in the hospital, and each candidate is allowed twenty minutes to examine them; then he has to give his diagnosis, &c., before the judges. Fifth, each candidate receives a subject, upon which he must write and have finished a *thesis* within twelve days (and some of them comprise one hundred and sixty pages) This must be defended against the attacks of two of the competitors—each being allowed thirty minutes.—Hence each candidate defends his thesis during one hour, and has the opportunity of making two attacks upon his fellow competitors; in the latter consideration he has three days' grace to prepare himself for the onslaught. The judges are seven in number—composed of five professors of the Faculty, and two agreges. The latter have no voice in the final vote for the successful candidate, unless some one of the former is deprived of being present by sickness or some other unavoidable detention.

The test of the concours is truly a severe one and well calculated to measure swords intellectually. For instance, that of medicine, last winter, commenced with over thirty competitors; yet before it was terminated, the number diminished to fourteen, out of which only five could be chosen. The trials are all public; hence, at times, as in the race, the feeling "outside" is intense, as each candidate, in the estimation of his friends, wins, or falls with the prize almost within his grasp. At some of the sittings I have seen twelve hundred persons present. If a man fails, he has but to try again, when the next concour comes around. It is said that even M. Velpeau failed twice—but, nothing daunted, succeeded at last.

Perhaps it may be said that this system is open to some objections—that those more ready of speech may sometimes appear to greater advantage than those less fluent, yet at the same time more profound in intellect. However this may be, it is certainly superior to any system where "preferment goes by favor." From this hasty sketch you will observe upon what basis these trials are conducted. It was only three or four years since such men as Nelaton and Malgaigne were concouring for professorships. Now they sit in judgment upon others.

In your Journal of May 25, I notice some remarks from the New York Medical Gazette upon the experiments of per-chloride of Iron in aneurism, by Dr. Pravas of Lyons. Not long since I saw M. Velpeau, at La Charite, make trial of the remedy in an aneurism upon the left arm of a young man. He injected a few drops, and it coagulated the blood in the part so that the tumor felt somewhat hard. In six or seven days he repeated the experiment; but it did not finally succeed. He then ligated the humoral artery.—M. Lenois, at Hopital Neckar, has used it once, but without much better success. However, when other cases present, it will be tried again.

M. Bennet, of Lyons, has recently addressed a note to M. Lallemand, upon the employment of the paste of the chloride of zinc in aneurism. He gives a case where he has been using it upon an aneurism in the subclavicular region. It acts as a gradual cautery, distroying and healing, so that several small arteries have been acted upon without producing any hemorrhage. The tumor is nearly consumed, and all seems to promise well. The final result will be given. The idea of using caustics in such cases is not new, but M. B. claims the use of zinc as such.

M. Nelaton, at l'Hopital des Cliniques de la Faculte de Medecine, operated, one week ago to-day, for stone: the patient a man. He made the recto-vesical operation—with this exception, that instead of cutting into the bladder behind the prostrate, as is usually done in this method, he cut through the prostrate itself. As he had diagnosed a very large calculus and several small ones—the latter lying in the prostatic portion of the uretha—he decided on this somewhat novel method. After the patient had been subjected to the influence of chloroform, the anus was readily dilated so as to remain lax, by the fingers, and the operation proceeded in the usual manner. The *lithotome* was used to enter the bladder: in fact, it is preferred by the French surgeons. The largest calculus was nearly round, measuring an inch and a half in diameter.—Four smaller ones were also removed, but with little hemorrhage. The anus was not wounded. At this date, patient is doing well. The great dread in rectal operations is a permanent fistula.

M. Velpeau has been in the habit, for a long time, of using a solution of sulphate of iron, in erysipelas; and several other surgeons here think much of the collodion. M. Aran, of late, has had the idea of combining the two, in proportions equal by weight. He thinks that the medicinal properties are thus increased, and that combined, they give a better security to the inflamed skin, from the air and other agents.

Last week, at the Academy of Medicine, a paper was offered, taking the ground that the introduction of vaccine virus had been the cause of typhoid fever. The Academy quietly disposed of it—thinking, perhaps that the author's brain needed repose.

Cholera is raging in the East to some extent. At St. Petersburg July 18, there were 633 patients under treatment, 79 new cases, 32 deaths, and 35 cures. From the intense heat and the absence of rains, the deaths at Calcutta, recently, were 1,100 in two days.

But my hour has expired, and I fear I have already written too much.

Respectfully, A. B. H.

PARIS, August 1. 1853.

From the Virginia Medical and Surgical Journal.

On the Influence of Parasites in the Production of Disease. By JOSEPH LEIDY, M. D., Professor of Anatomy in the University of Pennsylvania.

IN many animals entozoa and entophyta are almost never absent, and probably when in their natural habitation, and few in number, or not of excessive size, are harmless, as observed by Dujardin in the introduction of his excellent work on Intestinal Worms:—"Les helminthes se developpent dans un site qui leur convient, sans nuire plus que les lichens sur l'ecorce d'un arbre vigoureux. Ils ne peuvent devinir nuisibles, generalement, que par suite d'une multiplication excessive, laquella semble alors etre une des consequences d'un affaiblissement provenant d'une tout autre cause, d'une mauvaise alimentation, du sejour dans un lieu froid et humide, etc.: sans cela, les helminthes naissent et meurent dans le corps de leurs hotes, et peuvent paraitre et disparaitre alternativement sans inconvenients."

Many important diseases have been supposed to originate from parasitic animals and vegetables. The former are not the true entozoa, for these are too large, and may be detected by the naked eye, but they are considered to be animalculæ so small that they cannot be discovered even with the highest powers of the microscope. But, independent of the fact that the existence of such entities is a mere supposition, none of the well known animalculæ

are poisonous. At various times I have purposely swallowed large draughts of water containing myriads of *Monas*, *Vibrio*, *Euglenia*, *Volvox*, *Leucophrys*, *Paramecium*, *Vorticelli*, etc., without ever having perceived any subsequent effect.

The production of certain diseases, however, through the agency of entophyta, is no longer a subject of doubt; as in the case of Muscardine in the Silk-worm, the Mycodem of Porrigo favosa in Man, etc.; but that malarial and epidemic fevers have their origin in cryptogamic vegetables or spores requires a single proof.* If such were the case minute vegetable or spores conveyed through the air, and introduced into the body in respiration, could be detected. The minutest of all known living beings is the *Vibrio lineola* of Muller, measuring only the 36,000 of an inch, and the smallest known vegetable spore is very much larger than this, whilst particles of inorganic matter can be distinguished the 200,000 of an inch in size.

I have frequently examined the rains and dews of localities in which intermittents were epidemic upon the Schuylkill and Susquehanna rivers, but without being able to detect animalculæ, spores, or even any solid particles whatever. I have examined the air itself for such bodies, by passing a current through clear water. This was done by means of a bottle, with two tubes passing through a cork stopper; one tube dipping into the water, the other reaching not quite to its surface. By sucking upon the latter tube, a current of air passed through the former, and was deprived in its course of any solid particle. Ordinarily, when the atmosphere was still, early in the morning, or in the evening, neither spores nor animalcules could be detected. When piles of decayed sticks or dry leaves were stirred up, or the dust was blown about by the wind, a host of most incongruous objects could be obtained from the air; none, however, which could be supposed capable of producing diseases.

To assert, under these circumstances, that there are spores and animalculæ capable of giving rise to epidemics, but not discernable by any means at our command, is absurd; as it is only saying in other words that such spores and animalculæ are liquid and dissolved in the air, or in a condition of chemical solution. That the air may be poisoned by matters incapable of detection by the chemist, is proved by the emanations from such plants as the *Rhus vernix*, *Hippomane mancinella*, etc.—*Smithsonian Contributions to Knowledge.*

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*See an ingenious little work by my distinguished friend, Dr. J. K. Mitchell, "On the Cryptogamus Origin of Malarious and Epidemic Fevers."

From the American Journal of Pharmacy.

Tinctura Cinchonæ Ferrata.—By SAMUEL SIMS.

Huxham's Tincture, the officinal Compound Tincture of Peruvian Bark, cannot be combined with any of the ordinary chalybeates without an offensive decomposition, seriously affecting its apparent, if not its real characteristics. These reactions were examined at the solicitation of Dr. J. F. Meigs, and a tincture prepared, so modified that it is no longer incompatible with the salts of iron. Sixteen grains of Ammonio Citrate of Iron are dissolved in each fluid ounce of this modified tincture, together constituting what has been denominated, for distinction, "Ferrated Tincture of Bark."

It is readily prepared by digesting in the Edinburgh Compound Tincture of Cinchona, sufficient hydrated sesquioxide of iron to completely eliminate the cincho-tannin, whether pure, oxidized, or combined. One ounce of hydrated sesquioxide, dried at a temperature not exceeding 130° Fahr., usually suffice for one gallon of the tincture. After the filtration, the tannate and excess of oxide should be washed with boiling alcohol to remove any trace of alkaloid which may have been in combination with the tannin and precipitated with it. This alcoholic solution may be evaporated to dryness, the product dissolved in a little water acidulated with citric acid, and added to to the filtrate along with the proper quantity of iron salt. It differs little in appearance from the ordinary Huxham's tincture, exceedingly agreeable, and in teaspoonful doses has become a very energetic invigorative, admirably adapted for administration in those cases of weak and languid habits of children and females, where the body is in a pallid or flaccid state, and very susceptible of fatigue or morbid action.

The ferrated tincture is not solely dependent on the quinia and iron it contains for its value as a curative agent. The grateful, and by no means inefficient adjuvants, the orange peel and snake root, and the other proximate principles of cinchona, independent of quinia, are by no means to be overlooked, and cannot be replaced by salts of quinia and iron alone, however scientific their artificial combinations may appear.

Fine French brandy employed as the menstruum, yields a still more grateful preparation, and should be substituted in all cases for the diluted alcohol, when the additional expense is no obstacle.

A quantitative examination of the cinchona alkaloids contained in this tincture, both before and after the elimination of the tannin, was made without appreciable difference in the result. A portion of the tincture as I have prepared it having been delivered to Prof. Booth to determine its iron constituents with accuracy, elicited the following statement:

PHILADELPHIA, Aug. 3d, 1853.

DEAR SIR:—The Ferrated Tincture of Bark, which you submitted to me for analysis, yields 4.23 grains of sesquioxide of iron to the fluid ounce.

Respectfully yours,

JAS. C. BOOTH.

MR. SAMUEL SIMS, Philadelphia.

The sesquioxide in 100 grains of the ammonio-citrate of iron was accurately determined to be 25.84 grains, consequently 4.23 grains of sesquioxide correspond with 16.37 grains of ammonio-citrate in each fluid ounce of the tincture examined. The slight discrepency is probably due to some difference in graduated measures.

Case of Paracentesis Thoracis.—By JOHN T. METCALFE, M. D., Physician to Bellevue Hospital.

CASE I.—*Aneurism of the Ascending Aorta, Serous Effusions in right pleura.* Thoracentesis for relief of Orthopnœa.

Patrick Kelley, æt. 50, tailor, a native of Ireland, presented himself at the clinique of the University Medical College, June 13, 1852, complaining of dyspnœa and cough.

The patient stated that his health had been good, with the exception of an attack of ague, fifteen years since, until about the beginning of February last. He was then taken with a dry, hacking cough, which was soon followed by œdema, especially of the lower extremities and right arm, and by dyspnœa. These symptoms had gradually increased, until the present time, and had lately, been accompanied by violent palpitation of the heart on taking a brisk walk, or on going up stairs. He had, also, found much difficulty in lying on his back, or on the left side; and had complained of lancinating pain about the right nipple, and of great œdema of the right side of the face.

Of late, the above symptoms had become aggravated, his nights had been restless, his appetite had failed, the bowels had been constipated, and the urine scanty and high colored.

At the time of making the examination, the pulse was of natural frequency, perfectly regular, equal in the two wrists, in size and strength. Respiration, 40 in the minute. Inspection showed that the chest was nearly symmetrical. The jugular veins (of the right side, especially) were much distended, but did not pulsate. Many tortuous veins of small size ramified over the right side of the chest and abdomen. There were unusual developments of the mammary

and superficial epigastric vessels. The right side of the face and right arm were considerably anasarcous. On forced inspiration, the left side of the chest expanded more freely, and showed the intercostal depressions more plainly than the right.

Percussion was normally resonant over the left chest. Auscultation revealed nothing unnatural, except puerile respiration. On the right chest, anteriorily, as far down as the fifth rib, percussion heavy, respiratory murmur weak, voice natural. No rales.—Heart-sounds transmitted to the infra-clavicular region, with considerable distinctness.

Posteriorly, below the upper third of chest, percussion was dull. Over the same space, there existed bronchial respiration, broncophony, and clear transmission of the heart-sounds. By placing the patient on all fours, the last mentioned physical signs were changed for greatly diminished dullness on percussion; and by the almost complete disappearance of the voices and breath-sounds, noticed whilst in the erect posture. A very careful examination failed to detect any morbid vascular or cardiac phenomena, or any localized dulness by the pleximeter, other than have been already mentioned.

The diagnosis made before the class was, "Serous effusion into the right pleural sac, due to some abnormal growth at the root of the right lung, probably of a carcinomatous nature."

The patient was treated by a member of the clinical class, Mr. R. B. Conn, under my direction, with a view to effecting absorption of the contents of the pleura. Blisters, at first of considerable size—subsequently, small, flying ones, were applied to the chest. Hydragogue cathartics and diuretics (among which the salts of potash, digitalis, and achillea millefolium may be mentioned) were freely employed, their use having been preceded by gentle ptyalism. From this treatment, which lasted about three months, there was no benefit derived. On visiting the patient from time to time, I ascertained that the general symptoms remained very much as they were on his applying at the clinique.—There was gradually increasing dyspnœa, lately, amounting to orthopnœa; the effusion seemed to be increased in extent; there was more œdema of the right side of the face; and the right arm and breast had become more anasarcous. It was also observed that the heart-sounds were more and more distinctly audible over the middle of the right third costal cartilage, and that there was slight dullness on percussion, with a slightly perceptible impulse over the same region.

The condition of the patient not having been improved, but, on the contrary, an aggravation of all the prominent symptoms having taken place, I determined to see if relief would not follow the withdrawal of what fluid might be found in the pleural sac. This

was accordingly decided on, and at the suggestion of my friend Dr. J. Edward Weber, I concluded to use the trochar of Schuh, with the substitution of a flexible catheter for the trough of the Vienna Professor.

The following are notes of the physical examination made on the morning of the operation (August 14th). Present, Drs. Weber, James R. Wood, and Van Buren. Pulse 110, small, equal in two wrists. Respiration 40. Considerable œdema of the right arm, which measured two inches more in circumference than the left at the elbow. Right side of the face and neck œdematous. Jugular veins greatly distended, especially on the side last mentioned, where there is much lividity of the skin. The epigastric and mammary veins much enlarged. No motion of respiratory expansion on right side, where the clavicle was scarcely visible, and the general surface smooth; contrasting, in this, with the opposite anterior half of the thorax, where the natural conformation and much depression of the intercostals spaces were seen during respiration. One inch below nipples, circumference of affected side two inches greater than that of its opposite. In right chest, percussion abnormally clear over infra-clavicular region, as far as upper border of third rib—below this, flat. Over resonant portion, vocal fremitus marked, no palpitation; elsewhere, absent. At the same part, vascular murmur weak; over lower three-fourths of lung, anteriorly and posteriorly, dull percussion, bronchial respiration, and broncophony ,extending nearly to the diaphragm. Transmission of heart-sounds, without murmur (this has never yet been detected) very plain, at the right nipple, which is three lines further from the median line of the body than the left. The left side of the thorax gives normal results on percussion and auscultation, with the exception of general puerile respiration.

The patient having been seated sideways on a chair, was directed to make a full inspiration, and to hold the breath at the end of it, in order that no involuntary inspiratory effort might cause admission of air into the pleural cavity. The trochar was introduced by a firm plunge, between the sixth and seventh ribs, just under the angle of scapula. At first I miscalculated the depth necessary to introduce the instrument, in order to reach the fluid, not having caused it to penetrate more than an inch. On account of the ædematous state of the thoracic parietes, it was found requisite to insert one and three-quarter inches of the trochar. This was withdrawn, the stop-cock turned, and a flexible catheter, having its lower end submerged in a little warm water, was attached to the outer extremity of the canula. On opening the tube, by turning the cock, a few bubbles of air contained in the catheter escaped from the lower end, and were followed by a stream of pale straw-colored serum.

The patient complained of a good deal of pain when the puncture was made, and was troubled for a few minutes with a short, dry cough. The fluid was permitted to flow until percussion showed that it had reached the level of the puncture in the chest. A glass of brandy and water was given him, the instrument withdrawn, the orifice covered by adhesive plaster, over which was put a compress and roller bandage, after which Kelly expressed himself as feeling very comfortably. The pulse was then 106, respiration 40.

The fluid evacuated, amounted, by careful measurement, to *forty-eight ounces*, and was nearly entirely solidified when heated in a spoon.

The kidneys had not acted well for the first week; and at Dr. Weber's suggestion, the following prescription was administered as a diuretic:

℞ Ammoniæ Sesquicarb. ℥ i.
Aquæ Communis, ℥ vi.
M.

S. A tablespoonful, every two hours.

9, P. M. Had gone to bed after the operation. Was somewhat distressed from an uneasy, but not painful feeling in the chest—coughed a little—ordered him a tumbler of milk-gin punch, and a quarter of a grain of sulphate of morphia.

15th. 10, A. M. Has passed a quiet, comfortable night, and has been able to lie down at full length and to sleep, from about 10 o'clock the evening before. Expresses great satisfaction at relief from the distressing orthopnæa, under which he he has so long labored. The secretion of the urine much more copious than it has been for some time.

The administration of the carbonate of ammonia and gin-punch was continued for about a week, at the end of which time, the œdema had nearly all subsided from the face, chest and right arm. Sleep had been nearly natural, and the prospect of being soon able to resume his work seemed fair. It is now observed, that there was an impulse communicated to the hand, when applied over the sternal border of the right infra-clavicular region, where a slight local prominence was observable, on inspection. At this part for about an inch and a half square, there was a slight dullness on percussion. No abnormal murmurs recognized. Distention of jugular veins still very considerable.

The aneurismal nature of the tumor was now pretty obvious.—From this time, the patient's condition remained tolerably comfortable until the early part of September, when he contracted a severe dysentery. This was found to be very little amenable to treatment, and finally terminated his life, apparently by exhaustion, on the 9th of October, 1852.

After the operation, there was never any very great complaint of dyspnœa. The patient was able to sleep in the recumbent posture; and until prevented by debility, consequent on the dysentery, had no difficulty in walking about his room. There was no change in the physical signs mentioned at the time of the operation, except the diminution of dullness on percussion, to a slight degree. The bronchial respiration and broncophony remained as evident as the had ever been. Trifling increase in the tumor, thought to be aneurismal, over the spot where the impulse was noted—the heart-sounds (?) were, towards the last, very distinct.

Sectio Cadaveris—11 hours post mortem.

Body pale; no œdema of arm or chest; no venous distention of small vessels of chest or abdomen.

Head—Not examined.

Thorax.—Lungs adherent to costal walls by old false membranes of great strength, on the left side the adhesion universal.—On the right side the lung was adherent to the thoracic parietes from the summit to the upper border of the fifth rib. Below this, there was a cavity formed by the base of the lung, superiorly; the upper surface of the diaphragm, inferiorly, and by the costal pleura laterally. This cavity contained ℥xxij of clear transparent serum, similar, in every respect to that removed at the thoracentesis.—The heart, in situ, was smaller than the average size, (℥vi. in weight) and presented clearly marked fatty degeneration of the muscular fibres under the microscope.

Commencing one inch and a half from the valves of the aorta, was an aneurism of that vessel, springing from the right side, spreading posteriorly and anteriorly. It was filled with loosely packed layers of fibrine, and was as large as a goose's egg. Opposite the right costal cartilage, adhesion between the sac and wall of the chest had taken place over a place as large as a Spanish dollar, where the wall of the artery had been absorbed. Beyond the aneurismal sac, there was enlargement, with athorma and calcification of the aorta, as far as it could be traced, in the thoracic portion.

The position and size of the tumor had been such as to cause very trifling pressure on the trachea or œsophagus; but the superior cava, the right bronchus, and the pulmonary veins of the right side, were much compressed.

The operation in this case was simply intended to have a palliative effect. It was considered up to the time of its performance that the patient was laboring under a disease of incurable nature; and it was thought evident that much of the distressing difficulties of breathing was due to the effusion in the chest. We may here make the same remark that Dr. Henry I. Bowditch's observation has suggested—that it is not necessary for the relief of dyspnœa,

due to this cause, that the fluid should not re-accumulate. The relief given by its first withdrawal is much more permanent than we should *a priori* be led to expect, in cases like Kelly's, where the liquid agains returns in the pleural sac.

It will be observed that the phenomenon of abnormally *increased resonance*, on percussion, in the infra-clavicular region of the diseased side existed in this case. The explanation of this sign, as regards its physical cause, is as yet, not very satisfactory. Its existence has long been known, and an interesting paper touching this point, has lately been published by Dr. Markham, in the Monthly Journal of Medical Science. In this case it certainly was due to the effusion or secretion of air into the pleural cavity, as the costal and pulmonary surfaces were closely adherent by old organized fibrin.

It was not unlikely that this unnatural clearness of the percussion note was the cause of my failing to recognize, at an earlier period, the presence of the aneurismal tumor.

Case II.—James Somerindyke, native New York, a gardner by occupation, entered Bellevue Hospital on the 27th of January, 1853, suffering from pain and soreness in the præcordial region, with dyspnœa.

With the exception of an occasional attack of rheumatism or cold such as his out-door life exposed him to, he had enjoyed good health, until twelve days before admission; when he had been taken with a violent fit of vomiting, during which he strained very considerably. After this, he observed that the left cheek, anteriorly, was sore and painful. He referred the attack of vomiting to having suddenly encountered a very disagreeable odor.

One week subsequently, whilst driving a horse and cart, having his hand on the latter and making very moderate pressure in pushing, he suddenly found himself suffering from dyspnœa, but without pain—to use his words, "I felt just as if I had run a hard foot race." He sat down to rest, for about a quarter of an hour, without obtaining relief from the difficulty of breathing, which became so considerable, that he was obliged to drive home in his cart. Repose gave no respite from this trouble, and he concluded to enter the hospital, under the care of Dr. Clark.

On admission, he complained of inability to lie down, the attempt being followed by a feeling of threatened suffocation. The slightest muscular exertion increases greatly the difficulty of respiration, and præcordial pain and distress. Orthopnœa constant; pulse 160, small, irregular, intermitting. The treatment ordered was absolute rest, dry cups to the præcordial region, and the internal use of extract of hyoscyamus.

March 18th.—Since last note, the patient's general condition has somewhat improved. He is now able to sleep in a semi-recumbent posture. From this, however, he is often suddenly aroused, with a start, and has a violent dry cough and dyspnœa. These symptoms are relieved by sitting or standing upright. Physical examination by Dr. Clark:

Position of apex-beat difficult to localize palpitation. It is about four inches from the medium line of the body, to the left. Systolic impulse increased in force at the apex, and at no other point. By ordinary percussion, vertical diameter of heart's dullness 4½ inches —transverse not exactly determinable. Auscultation gives no endocardial murmur, nor any other abnormal sound. Entire loss of rhythm and extremest irregularity of heart's action. Former treatment (palliative) pursued. The disease was considered to be one affecting the valvular apparatus; probably rupture.

By the beginning of May, the patient had been considerably relieved; so much so, that he determined to leave the hospital, and to return to his work. This he was able to attend to, but very imperfectly. A few days after discharge, whilst making some slight exertion, he was again taken with the præcordial pain, dyspnœa and cough. He had several attacks of epistaxis, his distress continued to increase, and on the 16th of May, he entered as a patient in my service. The following notes was then made: body somewhat emaciated; face anxious in expression, with slight lividity; arcus senilis well marked in both eyes; feet œdematous; dyspnœa great; heart's impulse diffused, but not strong; apex beats two inches to the left of its natural position; præcordial dullness as before observed. Elsewhere, chest resonant anteriorly, except over the upper sternal region, where dullness on percussion is marked. Posteriorly there is resonance, except in the right infrascapular region. Respiratory mumur puerile, save where dull percussion has been noted; in these portions of the chest it is absent. In the interscapular spaces (especially in the right,) prolonged expiration blowing in character, with occasional sonorous rhonchus. Heart-sounds (?) transmitted with unusual distinctness to middle of right clavicle, and generally to the right side of the chest. The second sound, over the position of the valves, not clearly recognizable. Rhythm and character, as when examined by Dr. Clark.—No abnormal murmur. The signs lead to the opinion that there was effusion in the right pleura and dilatation of the arch of the aorta.

The patient was treated by the administaation of Hoffman's Anodyne, in drachm doses, to relieve the sudden paroxysmal fits of dyspnœa under which he labored. This medicine, after a short time, had to be discontinued, on account of the unpleasant cere-

bral excitement and wildness it produced. In its place the solution of sulphate of morphia was prescribed; generally with temporary relief. To combat the tendency to dropsy, hydragogue cathartics were administered occasionally, whilst, as a habit, he took the infusion of digitalis, in half ounce doses, three times a day. Freer watery evacuations were obtained from the former, and copious diuresis by the latter means. Nevertheless the legs began to swell, becoming very greatly distended and hard, the genitals became anasarcous, there was ascites and evident increase in the fluid effusion in the right pleura, the orthopnœa was constant and painful to behold.

On the 6th of July at my visit, I found an aggravation of all Somerindyke's symptoms. The extremities were cold and livid. The most violent action of all the muscles of respiration was necessary to enable him to breath at all. The dropsy, generally, increased since last observation. On physical examination there was found to be a great increase of fluid in the right pleural sac. The right chest measured, on a level with the fourth rib, three quarters of an inch more than the left. *It expanded, on forced inspiration, as much as the opposite side, and showed the intercostal depressions quite as plainly, without widening of the spaces between the ribs.* Strong visible and palpable pulsation of the carotid and subclavian arterteries of each side, especially of the right. These full, hard, powerfully-beating vessels contrasted strongly with the small, irregular and weak radial pulse, which latter is similar, in every respect, in the two wrists.

The left side of the chest furnished natural signs on palpation and percussion, with puerile respiration over its whole extent. The right side was dull from the level of the third rib, to the abdomen. Over this portion there was soft, distant, bronchial breathing and broncophony. In the axillary region, faint œgophony. No vibration of chest wall, on palpation over lower three-fourths of right side. Respiratory murmur weak over resonant part of right lung.

Heart's dullness as before noted. Over the whole præcordial space, a faint systolic murmur, transmitted to subclavian and carotid arteries, and more audible, perhaps, over third costo-sternal articulation than elsewhere. Second sound nowhere recognized, no thrill in palpation. Impulse weak. Pulse 84, respiration 40. The patient's condition was evidently such that no benefit was to be expected from the use of the hydragogues or diuretics. He was anxious to have something done to afford relief from the feeling of suffocation; and caught eagerly at the idea of having an operation performed, which promised any chance of rendering him more comfortable.

According, having placed him on a stool of convenient height,

I introduced an exploring needle between the seventh and eight ribs, immediately beneath the angle of the scapula. Along the groove of this a drop of clear serous fluid escaped. I then had a bandage applied around the chest, and into the puncture made by the needle, I plunged the trochur of Schuh, to the depth of one inch, having previously, with a lancet, made a short incision through the skin. The introduction of the instrument appeared to give great pain, and caused such movements of the body as to make it necessary to have him held by assistants. On turning the stop-cock, I experienced the same difficulty as had been met with in Kelly's case. Either the instrument had not penetrated to a sufficient depth to reach the fluid, or the motions of the patient had caused its withdrawal. I replaced the trochar in the canula, and pushed it half an inch deeper. On its withdrawal and turning the cock, a full stream of limpid serum flowed from the canula. The catheter was now adjusted, its free end immersed in a little clean water, and the fluid allowed to escape until the chest was emptied. In this manner *seventy-two ounces* of serum were evacuated. During its flow, steady tension of the roller bandage was kept up. The patient, I think, was by this expedient relieved from the sense of discomfort in the thorax, which, in my former case, and in several of Dr. Bowditch's,* was so marked a symptom.

At the close of the operation, which lasted half an hour, the respirations per minute had fallen to 26, and nearly all trace of dyspnœa had subsided. Great relief was visible and was expressed at being able to take a long, full inspiration.

The chest, examined in few minutes after the operation, showed the percussion sound to be symmetrical on the two sides. Vesicular murmur pure, but faint, over whole of right lung. Vocal resonance normal. No bronchial souffle. 5½ o'clock, P. M. Patient was seized with a severe chill, which lasted about twenty minutes, and was accompanied by occasional sharp, darting pains in the neighborhood of the puncture. In the course of the evening, the skin became hot, except that of the extremities, which remained cool. Pulse 100, respiration 30. The bandage was felt to be too tight around the chest, causing by its pressure a certain amount of dyspnœa. In loosening it, relief was afforded. To take twenty drops of solution of morphia. (Grs. xvi. to ℥ i.)

July 7th. Has rested comfortably during the night, in the horizontal posture, and has not suffered from dyspnœa. Some sharp pains of a lancinating character, extending from the right iliac to left hypochondriac regions. Has slight pain about right nipple, which was relieved by loosening the bandage still more.

* American Journal of Medical Sciences, April, 1852.

Pulse 96, respiration 24. To repeat the morphine at bed-time. To relieve the anasarca of the abdomen and inferior extremities, a half dozen small lancet punctures were made in the skin of the calf of each leg. Serum dropped freely from these.

July 8. He passed a perfectly comfortable night in sound sleep. No pain felt, even on forced inspiration.

July 18. Improvement continues. For several nights has not needed the anodyne. Large quantities of serum have flowed from the punctures without producing erysipelas. Abdomen and thighs much swollen and softer.

In this case also, the operative procedure was simply intended to serve as a palliative. This it has certainly done in a most marked manner, and after signal failure of those means on which we commonly rely in analogous cases.

I do not remember to have met with another instance, in which any thing like so considerable an amount of effusion into the pleural sac has been found to exist, without the presence of the signs furnished by inspection, noted as being absent in Somerindyke's case. Surely, with more than two quarts of serum, the accumulation dating from nearly two months previously, we should have been led to expect widening of the space and inaction of the intercostal muscles, displacement of the liver and mediastinum, and more considerable increase in the semi-circumference of the chest, on the affected side.

I have spoken, incidentally, of the instrument, used in these operations. It is composed of a trochar, such as is ordinary employed for tapping in hydrocele, a little over one line in diameter, and three and a half inches long. This fits into a canula, to which is adapted a stop-cock, at the distance of two inches and a quarter from the inserted end. Between this point and the other extremity, a roughened handle projects at right angles to the axis of the tube. There is no cup, as in ordinary canulæ, to this end; but the ordinary diameter is preserved, so as to allow the adaptation, over it, of the elastic catheter. This has been preferred to Schuh's trough, as being more simple, more easily obtained, and less likely to get out of order.

It will readily be imagined that the object of the procedure mentioned is to remove the fluid from the chest, without allowing the entrance of air and incurring the risk of making a pyogenic membrance of the pleura. This end is easily obtained in the manner described, as it has been already effected by the plans of Raciborski, of Schuh, and of Bowditch. I conceive that its merit consists in its greater simplicity.

With regard to the exploratory puncture, I may state that it was made not from any doubt as to the existence of fluid, but that I might not introduce the trochar at a point where costal and

pulmonary pleura should be adherent, one to the other, and thus oblige me to make a second use of the instrument. This has always given considerable pain—the needle is not complained of at all. It is not always easy to tell when the fluid has ceased to flow, unless by raising the free end of the catheter, and thus incurring the risk of allowing air to enter the pleural cavity. I have found that this can be done by rolling a piece of bread crumb between the fingers, until it is made slightly heavier than water, and letting this fall to the bottom of the fluid. It is only necessary to bring the end of the tube near the crumb, in order to detect the exit of fluid, by the motion imparted to the little mass.

It will probably be found that the use of the bandage, to compress the chest during the flow of the fluid, will be as beneficial, in this case, as it is now recognized to be, in paracentesis abdominis.

It was my intention to publish in full, with the preceding cases, two others, in which I made use of the same instrument, for almost the same disease. An unfortunate loss of my notes prevents me from giving more than an outline.

Case III.—In one, that of a young man suffering under enormous distention of the right side, by pleuritic effusion, producing orthopnœa, and threatening suffocation, I removed between forty and fifty ounces of yellowish, somewhat turbid serum. For a week afterwards, he was very comfortable, and slept with ease, in the recumbent posture. By imprudent exposure to cold and wet, he contracted peritonitis at the end of that time, and died after three or four day's illness. About half the amount of fluid removed had re-accumulated.

Case IV.—The second case was that of a child, three years old with accumulation in the left pleura so considerable, as to dislocate the heart's apex to the right nipple, to cause a descent of the liver below the costal margin, and to paralyze the intercostal muscles of the diseased side. The fluid removed from him was very much like pea soup in color and consistence. It amounted to forty-six ounces, and was slightly fetid. The respiration with him amounted to sixty per minute, and so great was the dyspnœa that the child was obliged to remain almost constantly in his cradle. In this case the operation gave such relief, that, in three days, he was able to walk out and spend the day with some children of his own age, in playing about their nursery. Owing to his struggles, the catheter was at one time displaced, and some twenty or thirty bubbles of air entered the pleural sac. By the expiratory movement they were soon expelled. No evil result followed this accident; nor do I believe that harm ensues from the entrance of air in cases like this, of true empyema.

In the course of a month, the fluid returned, in the case last mentioned. The parents of the child changed their habitation, and and I was unable to trace its history subsequently.

From the Ohio Med. and Surg. Journal.

Desquamative Nephritis.

The following is an extract of a letter from our highly esteemed friend, Dr. J. Bassett Chapin, now a resident of the New York Hospital. The case described and the remarks upon it, are very interesting, and will be read with profit by every one. We hope hereafter to receive similar favors.—*Ed. O. Med. & Surg. Jour.*

* * * In no department of investigation has greater progress been effected than in the study of Renal diseases. To Dr. George Johnson, of London, is due the credit of clearing away the veil that has long obscured these diseases, who has demonstrated the necessity of the microscope for their proper diagnosis. He divides all kidney affections, attended with albumen in the urine, into two varieties; the first he denominates Desquamative Nephritis, embracing that variety of disease characterized by the presence in the urine of eqitherial cells, and fibrinous casts of the uriniferous tubules, and often blood. The second variety, by the presence of epithelial cells, waxy colored casts, and fat globules. These globules exist in the cells, and load the casts, or by their abundance, rupture the cells, and exist free in the urine. Blood is often an accompaniment to the above throughout the disease; this is the true granular disease of Bright—a fatty degeneration of the kidney.

Since the announcement of the above results, great interest has been excited to see how far repeated observation would tend to confirm them. The cases of albuminous urine have been attentively observed the past year by Dr. Van Arsdale, the microscopist of this hospital; and I am sure I can write you nothing of more interest than to communicate to you the history and full notes of a case most recently under treatment. This, you will observe, confirms fully the characteristics of the first variety; and I select this from several on account of many features of interest involving the treatment pursued.

Case.—A German, aged 36, a farmer, was admitted April 12th, during the attendance of Dr. Swett. Stated he enjoyed good health till five weeks ago, when he arrived in an emigrant vessel from Liverpool. About this time attacked with dizziness, vomiting and diarrhœa, together with considerable febrile excitement; but does not recollect to have had any sore throat, rash, or eruption over body; was convalescent in three weeks, marked by re-

turn of appetite and strength. Three weeks ago noticed an œdematous swelling appearing first in the legs, then in face, and extending to abdomen and body generally. About this time noticed his urine very high colored, and was obliged to void it often during the night. Has complained of no pain about region of kidneys.

At present, pulse 100, good strength, skin cool and *dry*, tongue natural, bowels regular, appetite fair. Legs and abdomen considerably distended, face puffy. There appears to be a general exfoliation of the cuticle over body, and spots of purpura. No tenderness over kidneys on pressure. Complains that he is very much affected by changes of temperature.

On examination of liver and heart, no enlargement detected, apex strikes natural; faint blowing sound, with sound of heart, over aortic valves.

Quantity of urine in 24 hours, two pints, very high colored, frothy, of acid reaction. Sp. gr. 1006, depositing, by heat, and nitric acid, an almost solid deposit of albumen.

Microscopic examination shows urine to contain blood in moderate quantity, epithelial cells, and casts of the uriniferous tubes. No fat globules observed.

C. C. ad reg. lumb.

℞. Hot air bath, ter in die.

℞. Ipecac pulv. gr. ¼.

Mind. Spiritus ʒss. M. 9. 4. h.

April 15. Urine 3 pints in quantity, Sp. gr. 1004. Is clearer, contains much less albumen. Skin becomes moist during application of hot air, but generally dry. Has had two days looseness of bowels, stools contain mucus and slime.

April 17. Urine last 24 hours, 6½ pints, Sp. gr. 1003, dark colored, shows but a faint cloud of albumen by chemical agents. Microscopic examination, shows presence of cells in abundance, no blood, no casts. Perspired freely for two hours last evening. Dysenteric stools continued.

Discont. above.

℞. Pulv. Dov. grs. v. p. r. n.

April 19. Quantity of urine last 24 hours, 6¾. Sp. gr. 1004. Dropsy has very much diminished. Has had 6 stools last 24 hours. containing blood. Skin acts freely.

℞. Opii, P. grs. ij.

Plumb. Act. grs. ij H. Pill. 9. 4. h.

April 21. Quantity same. Sp. gr. 1004. Microscope shows a little blood, a few epithelial cells, no casts. Skin perspiring freely. Dysentery checked.

Discont. above.

C. C. ad reg. lumb.

℞. Hot air bath.

℞. Spts. Mind. et Ipecac. Mist. 9. 4. h.

April 25. Quantity of urine 5½ pints. Sp. gr. 1005, of dark color. Microscope shows it to contain cells and fibrinous casts in much less quantity. Skin acts freely; dropsy subsiding; not any about face or abdomen; most marked about ankles.

May 9. The quantity of urine has been gradually increasing, reaching 12 pints. Sp. gr. 1004, and much clearer.

Chemical examination shows the slightest possible trace of albumen. Microscope shows nothing but mass of disintegrated cells.

General condition improving, and walks about the ward for first time.

Resolved to discontinue all treatment.

May 25. From time of last note, urine has been gradually diminishing, amounting last 24 hours to 5 pints. Sp. gr. 1006. No albumen; nothing microscopic; very slight œdema about ankles.

Walks about; appetite good.

June 5. Quantity of urine, 3½ pints. Sp. gr. 1008. Is considered to be in a condition to be discharged at the expiration of his time.

You will observe the disease run its course to a favorable termination; there were many reasons to suppose the patient had contracted scarlatina from his exposure on ship-board, and from the exfoliating process going on in the skin, though no other points were elicited.

The microscope showed the same desquamative process going on in the glandular uriniferous tubes, the abundance of their cells, their subsidence, and final disappearance.

To explain the phenomenon of the above, it is necessary to recall the anatomy of the kidney as demonstrated by Todd and Bowman, and to know that the uriniferous tubes are lined by glandular epithelial cells, resting upon a basement membrane, whose office is to eliminate the solid constituents of the urine.

The pathology of these appearances depends upon the fact, that the kidneys take upon themselves to eliminate from the blood foreign matter that may be existing in it, as when the exfoliation of the cuticle, after scarlatina is arrested, the kidneys eliminate what is supposed to be the "*materies morbi*;" to perform this function, the death of the cell and its presence in the urine, is the result, which is always to be looked upon with suspicion; for no cell ought normally to exist in the urine.

This desquamative process may go on then according to the condition of the blood, new cells produced; but if it is to continue, become chronic, a time will come when they will lose their primitive vitality, none be reproduced, and atrophy from disease, and permanent disease result.

The presence of blood corpuscles, and, of albumen, is owing to congestion of the malphighian bodies, and mechanical exudation;

the fibrin coagulating furnishing the casts of the tubes, which are washed away in the flow of urine existing generally through the course of the disease.

These diseases generally run their course to a favorable termination, leaving no permanent disease of the kidney; properly to diagnosticate this variety, and especially as aiding us in the prognosis, the microscope is to become an indispensable agent.

In the treatment of this disease, the microscope indicates rather a negative course. The cells, as they fall off, very often block up the tubes, and it would be obvious that diuretics, or substances likely to irritate the kidneys, would increase the difficulty. The indication is to relieve the congestion of the kidneys, manifested by the presence of blood in the urine; this, perhaps, ought to be received with some caution; for, in some cases, the hemorrhage seemed to be rather a passive one than active.

To relieve the dropsical accumulations, different plans are suggested; but the treatment pursued here and oftener successful, perhaps, is the diaphoretic. In reviewing the above case, you will observe the result. The patient received internally the Spiritus Mind. and Ipecac., and externally was administered the hot air bath for 30 minutes at a time, repeated during the day. In three days the skin, hitherto dry and harsh, became relaxed, and in five days diaphoresis was established, much to the relief of the kidneys.

When the skin commenced to act, the urinary secretion began to increase, and the bowels were spontaneously loosed.

I have endeavored, as briefly as possible, to detail the case above, and hope it will prove of sufficient interest to pay a perusal.

From the Western Lancet.

Aphonia of Twenty Months Standing, Relieved by Iodine Inhalation. By Edward B. Stevens, M.D., Lebanon, O.

In a communication to the American Medical Association, in its Vol. of Transactions for 1850, Prof. Pancoast has given the record of two cases of loss of voice. The one of six, the other of seven months standing, both cured by inhalation of a dilut. chlorine vapor.

In connection with these cases, Dr. Pancoast remarks: "The form of aphonia here alluded to, is that which many practitioners must have met with, following an ordinary cold, without leaving any perceptible organic lesion in the pulmonary apparatus. The The voice is reduced to a faint hoarse whisper, distinguishable only at a distance of a few feet, and on continued attempt to talk, though it gives no pain, becomes quickly attended with a feeling

of fatigue, as though there was some obstruction to the passage of air through the larynx. In breathing merely, there is little or no difficulty, in these cases, as the individuals are capable of undergoing considerable exertions without very unusual signs of fatigue. The difficulty has appeared to me to be in the paralyzed condition of the muscles of the larynx, whose business it is to dilate the rima glottidis, during the act of articulation."

The conclusion of Dr. Pancoast is, that such agent as will excite a healthy and proper degree of stimulation in the affected structure ought rationally to restore the power of articulation. He consequently used the dilut. chlorine vapor, with entire success in the two cases referred to,—at the same time suggesting that iodine, or other similar agents would doubtless produce a similar effect.

The following case of this kind lately occurred in my practice, chiefly remarkable from the long duration of absence of voice, being twenty months, in other respects similar to those related by Dr. Pancoast.

April 6, 1853.—Miss——— applied for medical advice and treatment, in a case of loss of voice, of twenty months standing, supervening upon a slight attack of influenza. Has been subject to brief attacks of hoarseness, lasting for a few days at a time, for several years. General health delicate. Since the present attack, has been subject to a great variety of treatment, including the application of nit. silv. in strong solution, within the larynx by means of the sponge probang. Nothing, however, producing any effect upon the voice. I find upon careful examination, no especial evidence of disease in the fauces: there is an entire inability to produce sound of any description with the proper vocal organs; all attempts at speaking are made with the lips—*whispering*. But not being able to divest myself of the idea that a follicular inflammation of the throat and bronchial tubes was the cause of the mischief in some way, I commenced the treatment by directing the inhalation of nit. silv. prepared with the lycopodium, as an inpalpable powder, and inhaled by means of the apparatus introduced by Dr. Ira Warren. This treatment was faithfully persevered in for one month, with no better results than the previously tried remedies.

May 7.—Acting upon the idea suggested by Prof. Pancoast of paralysis of the muscles of the larynx, I now determined to try the iodine vapor. I accordingly selected an apparatus, consisting of a metalic vase or urn, with a close fitting cover, flexible tube, and mouth piece attached, (used some years since for breathing medicated vapors in the treatment of consumption), and directed my patient, after filling the vessel half full with hot water, to drop in 20 drops *tinct. iodine*, and inhale the vapor produced by the

heated water. Inhalation to be repeated once or thrice daily, according to the irritation or effects, otherwise, produced. The first inhalation produced great nausea for a short time, and copious bloody expectoration, but accompanied by an almost immediate, though partial restoration of voice. The dose of iodine was directed to be reduced to 15 drops; and thereafter no unpleasant effects were produced. The voice continued to improve steadily under this treatment, until the end of a week it had acqured the natural fullness and distinctness of tone.

June 15.—More than a month has elapsed since the restoration of voice; it continues distinct and natural.

EDITORIAL.

Fracture Tables, by FRANK H. HAMILTON, A. M., M. D., Prof. of Surgery in the University of Buffalo; accompanied with a supplement compiled from Dr. Hamilton's notes. By JOHN BOARDMAN, A. B.

THESE tables do not admit of any abridgement or analysis: we present the following from the supplement.

SUMMARY OF BONES OF SKULL.—I have taken the liberty of forming a summary from the valuable article "Lente's Statistics of Fracture of the *Cranium*," published January last in the "New York Journal of Medicine and the Collateral Sciences." In those tables *one hundred and twenty-eight* cases are reported, of which the result in *three* cases was not given, and in *eight* others the age was wanting; on this account I have omitted these in my summary of his tables. These results differ from those obtained from Dr. Hamilton's notes, but the reader, if he examines the cases in both tables will perceive that those recorded by Dr. Lente are such as have been brought into the *New York Hospital* during the last twelve years, the result of *recent* injuries, and that the proportion of those under *fifteen* years of age is very small compared to the other ages, while in Dr. Hamilton's notes more than one half occurred in the *first fifteen* years of life; also Dr. Hamilton's notes are *in part* composed of cases, which have come under his eye, after the lapse of several years from the time of the accident, and they cannot therefore so faithfully represent the average result of such injuries, since none but survivors are accounted for.

In a medico-legal point of view, the following suggestion of Dr. Lente, in the same article, is of value: in no case did death follow the receipt of the injury until after the lapse of some hours, even in the most desperate cases; nor does it appear possible for an ordinary blow upon the head, producing fracture of the skull, to cause death." In a recent criminal trial of great interest, it will be recollected that, at one stage of the proceedings, it was much discussed whether a blow upon the head with an ordinary weapon capable of inflicting death, could produce this result instantaneously; many eminent surgeons were examined, and the general impression was that the thing was exceedingly improbable, if not impossible, and the question was thus decided." A suggestion, that the reader will see is equally applicable to the notes of the thirty-three cases by Dr. Hamilton.

In the March number of the same Journal, Stephen Smith. M.

D., in an article entitled "Smith on Surgical treatment of Epilepsy," exhibits one of the frequent results of fractures of the cranium, as illustrated also by Dr. Hamilton's tables. In twenty-seven cases of epilepsy reported by Smith, twenty-four were known to have resulted from fracture of the bones of the head.

The New York Journal, before alluded to, vol. iii, 1840, speaks in very high terms of "Remarks on Fractures, by A. L. Pierson, M. D., of Salem, Mass.," which contains not only remarks, but also tables "drawn from the records of the Mass. General Hospital," "of all the cases of fracture ever treated in that institution." Also the Boston Med. and Surg. Jour., Aug., 1840, makes honorable mention of those tables. I regret that I have not had the opportunity of examining them.

In the same Journal, vol. iv., page 437, is a short article entitled "Cases of Fracture in the General Hospital of Hamburgh, during the year 1838, by Fricke." "The whole number treated was *seventy-two*. Of these, forty-two were cured, ten died, and twenty remained under treatment." Between 10 and 30 years there were twenty fractures; from 30 to 50 years, twenty-four fractures; 50 to 70 years, twenty-two fractures; 70 to 90 years, six fractures. Also the tibia and fibula were broken *twenty-two* times, the femor *seventeen* times, os brachii *seven*, and the clavicle *three* times—the *shortest term of treatment* was for the os nasi, *nineteen days;* and the *longest* for the neck of os femoris, *one hundred thirty-nine days.*

The author states that of the seventy-two, six remained from the last year; of the sixty-six who entered, fifteen were females.

Lente, N. Y. Jour., vol. iii, page 167, gives a statement of 1548 fractures, of which 1366 were males, and 182 females. I have not been able to determine the relative proportion in which fractures occur of the sexes: these, being the only statements I have been able to find on this point.

The only records I have found of the number of fractures drawn from a body of men, were the books of the Auburn State Prison. They show that of *five hundred and eighty* convicts admitted, *one hundred and twenty* reported at time of admission, ancient fractures.

The subject of *results*, which occupies the most prominent place in Dr. Hamilton's tables, is not considered in Fricke's table, nor am I informed that it constitutes a point in Pierson's tables, or in any others hitherto constructed. I am at least quite certain that by no one else, have the results been determined by measurements.

"Lente's Statistics of Fractures" published in the September number of the N. Y. Journal, give the "age, sex, season, and seat of fracture, &c.," in those fractures occurring in the N. Y. Hospital for the last twelve years, but in his tables, he makes no men-

tion of the amount of shortening in the different fractures. To show the relative frequency of fractures of the different bones, he institutes "a comparison with the statistics of Malgaigne, at the Hotel Dieu of Paris, Lonsdale, at the Middlesex Hospital of London," and Norris, at Pennsylvania Hospital of Philadelphia; from which, as well as from Fricke, at the General Hospital at Hamburgh, and Dr. Hamilton's notes, I shall make the following abridgment by way of comparisen.

NAME OF BONES.	N. Y. Hospital.	Pennsylvania Hospital	Hotel Dieu.	Middlesex Hospital.	General Hospital at Hamburgh.	Dr. Hamilton.
Thigh,	280	134	308	181	17	73
Tibia and Fibula,	442		515	197	22	73
Tibia,	45	293	29	41	5	19
Fibula,	92		108	51	4	16
Arm,	161		310	118	7	38
Radius and Ulna,	90	227	107	93	2	34
Ulna,	36		29	64	..	23
Radius,	143		160	197	1	27
Clavicle,	158	84	225	273	3	41
Inf. Maxilla,	65	19	27	32	1	13
Pelvis,	23	6	7	7	3	2
Patella,	30	16	45	38	1	7
Scapula,	17	10	4	18	..	3
Sternum,	12	5	1	2	1	1
Skull,	128	46	53	48	..	33
Amount,	1722	840	1939	1392	67	403

It is thus by comparison of the cases occurring both here and elsewhere, that I have endeavored to arrive at the general truths, which can only be obtained from facts collected from various sources. It is by comparison of the *results* in the tables first published by Dr. Hamilton, with those I have compiled from his notes, and also by comparing both with other tables, that I have sought to prove their accuracy as statistical records. There will be seen a striking similarity in the average results between the tables in the case of almost every bone; the relative frequency of fracture being nearly identical, as stated by the different writers. It is true the statistics of Middlesex Hospital present a much larger proportion of fractures of the superior extremities than the other

tables; but when it is ascertained that the number of beds in this Hospital is limited, and that a large proportion of those treated are "out-door patients," this disagreement will find a sufficient explanation.

A Valedictory Address to the Graduating Class of the Memphis Medical College, delivered by H. V. Wooten, M.D., Professor of the Principles and Practice of Medicine, at the Commencement, Feb, 26, 1853.

A Report on the Health and Mortality of Memphis for the year 1852, by Charles Todd Quintard, M.D.

Report of the Eastern Lunatic Asylum in the City of Williamsburgh, Virginia, 1852–53.

Essays on Asylums for Persons of Unsound Mind. By John M. Galt, M.D, Superintendent and Physician of the Eastern Lunatic Asylum of Virginia, at Williamsburgh.

Dr. H. A. Ramsay's letter to Dr. James Bryan, on the Southern Negro, &c.

An Address delivered at the laying of the corner stone of the University of Nashville, April, 1853 By John A. McEwen, A.M.

Galvanism, its Application as a Remedial Agent. By C. H. Cleveland, M.D.

Transactions of the Thirteenth Annual Meeting of the Medical Society of Virginia, with the President's Address.

A Review of a Report of a Committee of the American Medical Association on the Permanent Cure of Reducible Hernia or Rupture. By George Heaton, M.D., Member of the Mass. Med. Society, &c.

Many of these works have been on our table for some time, and should have been noticed before.

Dr. Wooten's address consists of an examination of the elements of character necessary to success in the practice of medicine, or, indeed, in any profession in life. The style and train of thought is appropriate to the occasion. In the closing paragraph the Doctor says:

"No great end was ever attained without a great aim. Then set the mark of your destinies high, and march energetically, prudently and firmly up to it and you shall not fail. Indeed, you must listen to no such word as fail. Human life, when extended to its utmost limits, is but a span, and to be successful in the achievement of any great purpose, will admit of no waste or misapplication. But you are, perhaps, told, that it is useless now to

enter upon a course of honorable ambition, because your profession is so heavily crowded with competition. It is, indeed, true, that in numbers, the field of labor is amply supplied. But when was it otherwise? And will you hesitate and falter, on that account? Suppose it were not so. If there were no competition, whence would triumph derive its glory? The honor of success is always measured by the magnitude and difficulty of the enterprise. Look at the hosts of good and useful, and great men, whom you may see, in almost every direction, who have wrought out their own high characters. Did they ever shun competition, or quail before its advances? Did you ever know one of them to wait for an opening? On the contrary, wherever he may spring up, the man who has the legitimate elements of success in his character, will be seen to approach nearer and nearer to the front of the column, and engage more and more heartily, in the strife for honorable advancement. Competition is the true school of efficiency and excellence, and the man who prefers to work without it, is like the school-boy who would study without a teacher. He who has not within himself, those elements of character, which will enable him to succeed, in the midst of competition, would not succeed under any circumstances, even of his own choosing. I speak of legitimate and permanent success.

But there is another matter to be remembered in this connection. Men are mere transitory beings. Those who, by years of assiduous labor, have acquired a reputation, are not to be your competitors; you are to compete with those of your own age, and who start even with you in the race. Older men are before you, but they must have their day, and pass away as the grass of the field. Be not impatient but wait and labor. Be steadily at the pool, and ready for the troubling of the waters. The men who seem now to crowd up so completely the avenues to success before you, will soon be ready to resign to you their places.—But while waiting for them, you must not, for a moment forget, that when obtained, these places to be held, must be *filled*, not merely *occupied*."

Dr. Quintard in his report on the health and mortality of Memphis, after alluding to the increased longevity of the present period, shows, that this increase is not due alone to the progress of civilization, but to a great extent, at least, to the progress of medicine. It is shown by the records of the Hotel Dieu, of Paris, that anterior to the great French revolution, the number of deaths to cases treated was one in three and a half, or nearly thirty per cent. In 1816 they were reduced to one in four and a half, and the diminution

of mortality has been constantly progressive up to 1840, to which time the tabular returns are completed. The proportion of deaths has diminished two-thirds while the time of treatment in 1838 was just one half of what it was in 1816. The records of American Hospitals lead to the same conclusions. The mortuary statistics of Memphis are then examined carefully and thoroughly, and the conclusion arrived at, that the records of the board of health are valueless.

Dr. Galt, the superintendent of the Eastern Lunatic Asylum, of Virginia, and the author of the essays on asylums for the insane, had presented a previous series of papers on that subject; the present was prepared by the direction of the Association of Medical Superintendents of American Institutions for the Insane.

Dr. Ramsay's letter contains an exposition of his views on the peculiar physiological character of the negro, cautiously and rather timidly, as it seems to us, expressed. The following are his conclusions:

"1st. That the crossing of the same species, disconnected by blood relationship, in man, animals and fowls, is essential to their perpetuation.

2d. That the crossing of the same species, proximately connected by blood, has a deleterious influence upon them.

3d. That the crossing of the white and negro might merge the black race into the white, but it would be infinitely worse for the negro.

4th. That the negro is physically superior to the mulatto, while the latter has more intelligence and prettier features.

5th. That the amalgamation is objectionable, under any circumstances.

We were agreeably surprised and interested in Dr. Cleveland's pamphlet on galvanism and its application as a remedial agent. It is a compend of the opinions of many men, eminent in the medical profession, upon the value and method of using this mysterious but powerful agent.

We have always believed, that properly applied in accordance with scientific principles, it would be found to be most invaluable

as a curative agent, but the apparatus ordinarily in use is defective. If any benefit is derived from it, it is purely accidental. The electro-magnetic, and magneto-electric machines, all of them, so far as we know, produce a series of shocks. Whatever be the quantity of electricity used, it should be of a low intensity; in the opinion of most writers, a single pair of plates being sufficient. This will produce no shock and no immediate sensible effect.

We quote the rules which our author gives for the application of galvanism:

"The writers already quoted have expressed themselves so distinctly, positively, and uniformly, in regard to the manner in which galvanism should be applied, that nothing remains to be done on that point but to *sum up* their statements in a concise form. But there is *one* very important matter,—in fact one that lies at the foundation of all correct and scientific use of this agent, that seems to have been frequently overlooked. I refer to the *kind* of galvanism employed, and especially whether of the *intense* or *destructive* kind, or otherwise.

As some, who are not practical chemists, do not appear to perceive wherein this distinction consists, I will briefly refer to the views of a few eminent chemists on this point.

Silliman, in the *First Principles of Chemistry*, presents the following proposition:—

'*Quantity* and *Intensity*.—We learn the remarkable fact, that no matter how much we may increase the number of members of the voltaic circle, the *quantity* of electricity passing in the current, is equal only to that evolved by a single cell. But the current which has passed through a number of similar cells, has acquired an *intensity* exactly proportioned to the number. Thus, *no single cell*, however large, would ever afford electricity of a *tension* sufficiently high to decompose water, or give the slightest shock to the animal frame.'

Smee, in his *Elements of Electro-Metallurgy*, p. 10, Am. edition, says:—'A hundred batteries may be conjoined, but no more electricity is obtained; for the same *amount* of electricity passes as when one cell is used. Now, however, this same *amount* can pass through a much greater resistance, for it would seem as if, at every alternation of the battery, the electric fluid obtained a *push* to overcome any obstacle afforded to its passage.'

Brande says, (page 213, vol. 1, of his *Manual Chemistry*,) that the *intensity*, as shown by *Faraday*, in his researches, is in proportion to the *number* of plates, while the *quantity* is dependent upon the *extent* of the plate. The same position is taken by

Sir H. Davy, in the *Philosophical Transactions* for 1840. *Hoblyn* says, page 89:—'It is necessary to point out the distinction between *quantity* and *intensity*.' *Gray* says, page 86, that —'Quantity refers to the *amount* of electric fluid set in motion; *tension*, or *intensity*, to the energy with which the current is impelled.'

Although authors have been thus plain in pointing out the source of the *destructive* element in galvanism, yet, neither those who have invented, manufactured, or applied the instruments in use by the profession, seem to have kept this distinction clearly in view. Belts, chains, and other modifications of the simple galvanic battery, have been devised, and the first idea seems to have been, to make the surface of the single pair *quite small*, so that but little *amount* of the agent would be generated, and then to increase the *intensity* or *destructiveness* of this agent, by uniting as large a number of these pairs of metals as possible in the single circle. These are very powerful to destroy, to decompose, but cannot impart any great amount of healthful energy to the part to which they are applied.

In the selection of an apparatus, the first thing is to get one that has but *one element*—that is but one plate of the metal which is the most readily acted upon. This plate should be sufficiently large to generate the *amount* of galvanism required, and that amount may be diminished at pleasure, by cutting off a part of the current either from the whole surface of the plate, or from a part of its surface.

The apparatus should be so arranged, that the part to be acted upon can be kept under the *continued* influence of the agent, for the desired length of time. Thus we avoid the *reaction* and *exhaustion* which follow when a stimulant has been powerful, applied but a short time, and then suddenly withdrawn.

The apparatus should be simple in its construction, so as not to be liable to become deranged while not under the eye of the physician.

To increase the vital activity and energy of any organ, and to impart the power of *motion* in an organ that has become more or less paralysed, the apparatus should be so arranged, that the *positive* plate, or the copper, should be *above*, or toward the *origin* of the nerves which are distributed to that organ, and the *negative*, or zinc plate, should be on the opposite side, or at the *extremities* of the nerves.

This rule is based on the fact, that all *motion*, or *increased action* in any organ, originates in an impression received from the brain, which impression passes *from* the nervous centre *to* the extremities of the branches of the nerves.

To rouse *sensation* in any organ, as the sense of hearing, of

sight, of touch, etc., the position of the plates should be reversed, so as to cause the galvanic influence to pass *from* the *extremities* of the nerves to their origin. This rule is based on the fact, that our nerves of *sensation* are acted apon by *external* impressions, and that these impressions are carried *from* the *extremities* of the nerves of sensation to the nervous centre.

Thus in each of the above cases, the galvanic influence is made to traverse in the direction of the *vis nervosa.* In applying the battery as last directed, great care should be used, as if two or more elements be used, or, in other words, if *intense* galvanism is applied, great pain will be felt, and irremediable harm may be done.

In making use of galvanism as a therapeutic agent, it should not be relied on to the exclusion of all other treatment; neither should a cure of the disease for which it is applied, be anticipated in a miraculously short space of time. Disease in any organ produces a change in the condition and structure of the organ diseased, and the time must be allowed for the processes of absorption and deposition necessary to bring the organ back to its normal condition. Galvanism, when properly applied, will be found of great value in hastening these processes; yet it will not do to apply it of such power as to *destroy* the organ from which we wish to remove the abnormal accumulations, or even to carry the action of that organ beyond the condition of *health.* As galvanism possesses great power over the animal economy, therefore it is imperatively necessary that patients to whom it is applied, should be immediately under the care and attention of a skillful physician. Any agent that is powerful, must be dangerous when applied in an improper manner; and one possessing the power to decompose water, and even the most intractable metals, should no more be placed beyond the control of those who fully understand its power and mode of action, than the locomotive should be allowed to start upon the track without being accompanied with a well instructed engineer."

The manner in which Dr. Cleveland uses this agent, is by placing plates of different kinds of metal connected by a steel spring, so that in completing the circuit, the current shall pass through the desired organ.

The transactions of the Medical Soeiety of Virginia contain only the address of the president, Dr. Beale, and the minutes of the meeting. The society has made a beginning in the accumulation of a library, an herbarium, pathological museum, etc.

The following was unanimously adopted:

Resolved, That a committee of three be appointed, whose duty it shall be to draft a plan for the creation of a fund for the relief of decayed physicians, their widows and orphans, and that the committee shall report at the next annual meeting.

Medicine in Virginia, as elsewhere, it seems, is not remunerative. Men give to the profession the best of their lives, and when no longer able to engage in its active duties, they too often find that their labor has been for nought—while administering to the physical necessities of others, their own pecuniary necessities have been neglected. J.

Peninsular Journal of Medicine and the Collateral Seiences, conducted by the Medical Faculty of the University of Michigan, edited by E. ANDREWS, A.M. M.D., Demonstrator of Anatomy in the University, Ann Arbor Mich. Issued monthly at $2 per annum, in advance.

WE have received the first and second numbers of our Peninsular neighbor. The original and selected matter, as well as the mechanical execution, is good, and we congratulate our Michigan friends on the favorable impression they must have made in their first introduction to their readers.

The editor, Dr. Andrews, is a strong, vigorous writer, of thorough literary and scientific attainments. We bespeak for him the kind regards of our editorial confreres, for we know him to be a good man and true. J.

Iowa Medical Journal, conducted by the Faculty of the Medical Department of the Iowa University, Keokuk, Iowa. Published monthly at $2 per annum in advance.

WE have received no news of the death of our quondam neighbor, the Medico Chirurgical Journal; we suppose, therefore, it still lives. We hope the University will make their new organ a better and more substantial Journal than its predecessor. Their appearance is creditable and the matter good. We cordially wish them success. J.

The Medical Reporter, a Quarterly Journal, published under the direction of the Chester and Delaware County Medical Societies. Terms, $1 per annum, in advance.

THE object of this Journal, as indicated in the introduction, is to preserve, in a permanent form, the transactions of the two medical societies, under whose direction it is published. We add it to our exchange list with pleasure. J.

The Transactions of the American Medical Association—Vol. V.

WE are happy to acknowledge the receipt of this valuable document.

We have already noticed Dr. Flint's Prize Essay, Dr. Clapp's Report on the Medical Botany of the United States, and have noticed at some length the proposed changes to the constitution and the grievances complained of in reference to the schools.

We may have something more to say of this in future. J.

Proceedings of the Minnesota Medical Convention, held at St Paul, July 23, 1853.

PURSUANT to a previous notice through the newspapers and otherwise, a convention of Physicians in Minnesota, met at the Court House in St. Paul, on July 23, 1853.

On motion of Dr. Ames, of Minneapolis, for a temporary organization, Dr. Thos. Potts, of St. Paul, was called to the chair, and Dr. Chas. L. Anderson, of St. Anthony Falls, was appointed Secretary.

On motion of Dr Ames, it was

Resolved, That we, Physicians, of Minnesota, deem it expedient to proceed to the organization of a Medical Society.

On motion, it was also

Resolved, That the Convention now resolve itself into a Committee of the whole, to produce a plan for the organization of a Medical Society in Minnesota.

PROCEEDINGS IN COMMITTEE OF THE WHOLE—Dr. John H. Murphy in the Chair.—Dr. Ames produced a form for the Constitution and By-Laws, which after duly considering and amending was reported, along with the National Medical Code of Ethics, to

the Convention, and the Committee adjourned to meet in Convention at 2 o'clock P.M.

AFTERNOON SESSION.

Convention met, and on motion, the report of the Committee was unanimously adopted.

On motion of Dr. Mann of St. Paul, it was

Resolved, That medical gentlemen present, of recent residence, be invited to take seats and participate in the deliberations of this Convention.

Dr. Ames then moved that the Convention now resolve itself into the Minnesota Medical Society, which was passed.

On motion, a committee of three was appointed to nominate suitable officers and committees for the society, to serve according to the Constitution and By-Laws for the ensuing year:

President—Dr. Thos. Potts, of St. Paul.

Vice-Presidents—Dr. John H. Murphy of St. Anthony's Falls, and Dr. E. A. Ames, of Minneapolis.

Corresponding Secretary—Dr. T. T. Mann, of St. Paul.

Recording Secretary—Dr. Chas. L. Anderson, of St. Anthony's Falls.

Treasurer—Dr. J. D. Goodrich, of St. Paul.

Censors—Drs. Wm. W. Finch, J. H. Day, and John J. Dewey, of St. Paul.

The following is the report on Committees, which was unanimously adopted:

Committee of Arrangements—Drs. Murphy, Anderson and Johnson, of St. Anthony's Falls.

Committee on Practice of Medicine—Drs. Brisbine, of St. Paul, Carli, of Stillwater, and Anderson of St. Anthony Falls.

Committee on Surgery—Drs. McDougal, of Fort Snelling, J. H. Day, of St. Paul, and Ames, of Minneapolis.

Committee on Obsterics—Drs. Potts, of St. Paul, Murphy, of St. Anthony Falls, and Mann, of St. Paul.

Committee on Drugs and Medicines—Drs. Goodrich, Willey, and Dewey, of St Paul.

Committee on Publication, (*ex officio*)—Drs. Mann, of St. Paul, Anderson, of St. Anthony Falls, and Goodrich of St. Paul.

On motion, the Society then proceeded to ballot for a delegate to the next meeting of the American Medical Association; which resulted in the election of Dr. John H. Murphy, of St. Anthony Falls.

Dr. Ames offered the following resolution:

Resolved, That this Society highly approve of the efforts made by the American Medical Association to suppress the sale of sophisticated drugs and medicines. Unanimously adopted.

Dr. Anderson offered the following resolution, which was unanimously adopted:

Resolved, That the next annual meeting of this Society be held at St. Anthony Falls.

On motion of Dr. Ames it was

Resolved, That the Corresponding Secretary be instructed to inform the American Medical Association of our willingness to co-operate with them.

The following physicians were present and assisted in the organization of the Society:

Permanent Members.

Drs. Thos. R. Potts, of St. Paul; Jas. D. Goodrich, do; W. W. Finch, do; Jno. J. Dewey, do; T. T. Mann, do; Jno. H. Murphy. St. Anthony Falls; Chas. L. Anderson, do; A. E. Johnson, St. Anthony City; Alfred E. Ames, Hennepin Co.

Present by Request.

Drs. A. W. Daniels; O. P. Marsh.

The following physicians were not present, but had expressed a desire to co-operate with the Society; and for that reason are unanimously elected members:

Drs. J. H. Day, St. Paul; Brisbine, do; Willey, do; McDougal, Fort Snelling; Carli, Stillwater.

After many expressions of hope for the success and usefulness of the Society, and of its members, it adjourned to meet again on the first Wednesday in June, 1854, at St. Anthony Falls.

T. R. POTTS, President.

C. L. ANDERSON, T. T. Mann, } Secretaries.

Spasmodic Asthma.

A CORRESPONDENT asks us for the best treatment for spasmodic asthma. The benefit derived from anodynes, antispasmodics and anæsthetics, such as chloroform, ether, &c., is but slight, and at most temporary. Dr. Watson, in the Glasgow Medical Journal, expresses the opinion that in a certain number of cases the affection is dependent on laryngeal disease. By overcoming the contraction at the glottis, that of the small bronchæ either simultaneously or speedily relaxes. The indication in these cases may be fulfilled more or less perfectly by the application to the larynx of a solution of nit. silver of the strength of from xv. to xxx. gs. to the ℥j. of water.

Electricity, passed in gentle currents along the bronchial tubes, sometimes diminishes their contractability. Small doses of strychnia repeated, say from 1-30 to 1-16 of a grain, may co-operate with other remedies.

We think Dr. Watson's method worthy of trial in cases of spasmodic asthma, especially where we have reason to suspect laryngeal disease. We have sometimes seen beneficial effects from large doses of quinine.

Saline Treatment of Dysentery.

SEVERAL cases, which have come under our observation recently, of successful treatment of Dysentery with chloride of sodium, sulphate of magnesia, and other salts in small doses, have convinced us that these remedies are not used as often as they might be with benefit in a class of cases in which portal congestion is the immediate cause of too frequent and free discharges of bloody and serous fluid from the intestines.

In a former number of this journal, we endeavoured to show that alkalies and their compounds are the proper remedies in all cases of torpidity of the liver, resulting from a deficiency of alkalies as compared with fatty acids for the formation of bile.

Portal congestion from torpidity of the liver, caused by deficiency in the alkaline constituents of the blood, is doubtless one of the most frequent causes of dysentery and serous diarrhœa; hence it is that the substances under consideration are in many cases the most efficient and prompt remedies.

The cases which have been treated successfully by these remedies under our observation are not numerous, but sufficient in number to justify us in calling the attention of our readers to the subject.

One of the prescriptions that have been found most efficient in dysentery is—Chloride of Sodium ℥ss, Sulph. Morph. gr. ½ in powder or dissolved in mucilege of gum arabic, repeated every four or six hours. H.

Rush Medical College.

Some little time since it was announced in some of the daily papers of this city that Prof. D. Brainard, President of the Faculty of Rush Medical College, and Professor of Surgery, would soon leave for Europe to spend the ensuing winter. To prevent any misunderstanding on the part of the friends of the College, I am authorized to state that the Faculty have unanimously consented to permit Prof. Brainard to visit Europe during the present season. He goes out expressly for the purpose of procuring such books, apparatus, preparations, and means of illustration, as the interests of the College require, in view of the establishment of a good museum and library in connection therewith. In view of his *temporary* absence, the course of lectures on *Surgical Anatomy*, *Surgery*, and *Clinical Surgery*, will be given by Prof. Herrick. The course on *Descriptive Anatomy* will be given by Dr. J. W. Freer, for several years past Demonstrator of Anatomy in this College. The course on *Physiology* and *Histology*, will be given by Dr. H. A. Johnson, of this city, whose enthusiastic devotion to those branches, and familiarity with the use of the microscope, eminently qualifies him for such a task. All the other branches will remain as in former years, and as specified in the Annual Announcement. Though all will regret even the temporary absence of Prof. Brainard from the post he has so long occupied with distinguished honor, yet, in view of the well-known reputation of Prof Herrick, as a surgeon, both at home and in connection with the army in Mexico, and his long experience as Professor of Anatomy, we feel no hesitation in assuring those interested in the coming session, that the several courses of instruction will be as full and complete in every particular, as during any former College term.

N. S. DAVIS,
Sec'ty of the Faculty.

Chicago, Sept., 1853.

Credit to whom Credit is due.

We have observed an article in some of our exchanges on *Stomatitis Materni*, taken from our June number, and credited to the *Med. Gazette*. We presume it is a mistake.

CORRECTION.—We notice a paragraph in some of our exchanges to the effect that the late Dr. G. W. Richards, of Dubuque, was at one time connected with Rush Medical College. This is a mistake; Dr. Richards was never, at any time, in any manner, connected with this institution.

Great Capacity of Physic.

THE following has been going the rounds of our exchanges. It is too good to be lost.

"The leading article in a late issue of that brilliant medical journal at 'Keokuk,' is entitled, 'A singular case of continued fever, originating from ulceration of the bowels,' in which the writer introduces his patient in this glorious style: 'His age was six years; temperament of the mixed quality, with redundent shade of the nervo-sanguinous; was inclined to be lean and spare, but possessed a round and muscular fibre.' (?) Two pages of this style intervene, in which we read that the bowels 'evinced normality of function,' and the patient was recommended the 'bain entier' and twenty grains of bi-carbonate of soda, and two grains of sulphate of morphine every three hours!'

Shadrack, Mesheck and Abednego!—but they are a powerful people in Keokuk, both for writin' and physic. If their youngsters stand such treatment, we wonder their daddies ever die. Go away, Fire King!"